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Chicago: Its History and Its Builders

A CENTURY OF MARVELOUS GROWTH

BY

J. SEYMOUR CURREY

Honorary Vice President Illinois State Historical Society, Vice President Cook County Historical Society, Member Chicago Historical Society, American Historical Association, Illinois State Library Association, National Geographical Society, Chicago Geographic Society.

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BEGINNINGS OF THE WORLD'S FAIR MOVEMENT

T the annual meeting of the stockholders of the Inter-State Industrial Exposition, held November 14th, 1885, Mr. Edwin Lee Brown, one of the directors, offered the following resolution, which was adopted: "That it is the sense of this meeting that a great World's Fair be held in Chicago in the year 1892, the four hundredth anniversary of the landing of Columbus in America." This resolution at once attracted public attention and became the subject of much discussion in the press of the city and the country at

large. "Many public men who were interviewed," says Andreas, "heartily commended the proposed World's Exposition, and it was deemed peculiarly appropriate for Chicago, the youngest, most enterprising and representative American city, to celebrate the landing of the great navigator of Genoa upon the new continent."

The celebration of the Centennial of the inauguration of George Washington as the first president of the United States in 1889, in Chicago, gave a fresh impetus to the movement for a World's Fair. The assembling on April 30th of that year of one hundred thousand people in eight mass meetings, and of two hundred thousand school children in over two hundred meetings, simultaneously, created such enthusiasm that it was considered an opportune time to prepare for the World's Fair in 1892. On July 22, 1889, the Chicago Common Council, in a series of resolutions, requested the Mayor to appoint a committee of one hundred representative citizens to take charge of the matter, and use all honorable means to secure the location of the Fair in Chicago. The Mayor on his own motion increased the number of citizens composing the committee to two hundred and fifty. On the first of August following, the committee met in the Council chamber and adopted resolutions in harmony with the purposes expressed in the Council resolutions.

While this was going on in Chicago, other cities were not idle. The people of New York and Washington were also holding meetings of a similar character, and making plans to have the World's Fair held in each one of those cities, and later St. Louis also took steps to the same end. New York proceeded to appoint committees on site, legislation, finance, etc., taking it for granted that the Fair would be held in that city as soon as the request to that effect should be made to Congress. These committees apparently did not work in harmony, and there was no system by which one knew what was being done by the others.

ORGANIZATION OF THE MOVEMENT

Chicago organized by the appointment of eleven standing committees, with the same secretary for each committee. Thus through this secretary all serious friction was avoided, and the committees moved together to the accomplishment of the one result. Mr. Edward F. Cragin was the secretary appointed for each of the committees, and his account of these preliminary steps is condensed from his published statement made afterwards in the New York *Mail and Express*.

The membership of these committees was enlarged from time to time until there were over six thousand citizens of Chicago and the surrounding country members of these main committees and the sub-committees appointed from them. The question of site was not discussed by any of them, except so far as to prepare a number of sites which were to be presented to Congress as being available. Men thoroughly familiar with all the arguments in favor of Chicago were sent into nearly every state of the Union, with a view of influencing the constituents of the members of Congress in their several districts. Thus the congressmen in a large number of districts were deluged with petitions from labor unions, manufacturers' associations, etc., and many state legislatures also passed resolutions favoring Chicago as the location of the proposed World's Fair.

It thus came about that before Congress assembled the congressmen were made

fully aware of the wishes of their constituents, among which the preference for Chicago largely preponderated. Effective work was done by one of the standing committees, that on National Agitation, of which Thomas B. Bryan was the chairman. "We were very careful in all our speeches and documents," writes Mr. Cragin, "not to present our case as that of Chicago against New York, but rather to show the advantage that would accrue to the great interior by having the Fair held in Chicago."

The argument was made that foreign nations would prefer to exhibit in New York, and to meet this argument (again using the words of the account), "we corresponded with every American consul in the world, asking them to inquire of the manufacturers and those who would be liable to exhibit, whether a seacoast or interior location for the World's Fair would be most desirable to exhibitors; and these answers were published and furnished the congressmen, and showed quite a majority in favor of an interior city as against a seacoast city."

When Congress assembled, New York, Washington, St. Louis, and Chicago had each a strong delegation working in behalf of their various cities. "New York's delegation was specially strong and ably conducted," writes Mr. Cragin. "Messrs. Platt, Depew, Hiscock, Belden, Flower, Shepard, Whitney, Fitch, Grant, and others of national prominence were giving superb banquets and dinners, and working tooth and nail for the success of New York. Chicago men from the first urged that a vote might be taken promptly; this however, they failed to secure, being out-maneuvered by the New York managers." The excitement ran high and great pressure was brought to bear upon congressmen to obtain their support. When the vote was at length reached it was found that Chicago received nearly as many votes as had been pledged to her, and it then appeared to the astonishment of the Eastern people that Chicago from the first had by far the largest number of votes in her favor.

SOURCES OF INFORMATION

A principal source of information regarding the World's Fair is found in the "History of the World's Columbian Exposition," edited by Rossiter Johnson, and published in four large volumes, in 1897. This history was authorized and paid for by the Exposition. In the preface to the work the editor says: "The materials from which the History has been compiled are the records of proceedings of the Board of Directors, and documents on file in the general offices; the reports of Harlow N. Higinbotham, President of the Company; George R. Davis, Director General; Daniel H. Burnham, Director of Works; Mrs. Potter Palmer, President of the Board of Lady Managers, and other reports by subordinate officers."

It appears that the editor never visited the Exposition at any time, and his work on the history therefore may possibly be lacking in the inspiration and first hand knowedge to be derived only from personal contact with the scenes and incidents on the spot. The work, however, is as full and satisfactory as could be expected when it is remembered that it is compiled mainly from official reports. The most important of these reports was that of the President of the Exposition, Mr. Higinbotham, whose volume of nearly five hundred pages, separately published, contains an excellent account of the inception and progress of the Exposition, infused with a spirit of enthusiasm and sympathy with the subject that is most admirable. This

report has been largely drawn upon for the account herewith given of the great Exposition of 1893. The "History of the World's Columbian Exposition," above mentioned, will be referred to as the "History," while the President's report will be mentioned simply as the "Report."

In a letter written to the editor of the History by Mr. Higinbotham, giving some general outline of its scope and purpose, he said: "If asked to write a History, or tell the story of the World's Columbian Exposition, and it had not been my good fortune to personally witness its grandeur, I should wish to take such testimony as would convince me beyond a doubt that unlike the vision of St. John, it did really have a material existence; that it was as real as it was beautiful; that it did have thrust into it by the hand of man in great abundance, his richest, ripest and rarest creations; that it was made to throb and pulsate as if it had breathed into it the breath of life; that it was a Mecca that attracted to its shrine pilgrims from all quarters of the globe; that yonder in a new city, in a far country, there sprung up a spectacle that was as awe-inspiring as it was unlooked for and unexpected."

The Directors paid the publishers, Messrs. D. Appleton & Co., of New York, twenty-five thousand dollars for publishing the "History," and received three hundred sets printed on large paper, and bound in half morocco. These were distributed as gifts to members of the official bodies connected with the conduct of affairs, and to various public institutions. Other copies were placed on sale by the publishers in the usual manner.

FORMATION OF THE INITIAL CORPORATION

The first step in the formation of a corporation was taken on August 14th, 1889. On this date, commissioners to take subscriptions in the corporation to be known as the "World's Exposition of 1892," were authorized by the Secretary of State of Illinois. The capital stock was placed at five millions of dollars divided into 500,000 shares of ten dollars each. The commissioners named were De Witt C. Cregier, Ferdinand W. Peck, George Schneider, Anthony F. Seeberger, William C. Seipp, John R. Walsh, and E. Nelson Blake.

On April 9, 1890, the capital stock had been fully subscribed, and articles of incorporation were issued, the object stated being "the holding of an International Exposition, or World's Fair, in the City of Chicago, and State of Illinois, to commemorate, on its four hundredth anniversary, the Discovery of America."

In making subscriptions to the stock of the World's Fair it was clearly understood that the subscribers would not be likely to have a full return of the money thus invested, much less any profit therefrom. At the Centennial Exposition of 1876, the subscribers had one-third of their subscriptions returned to them afterwards, and it was thought as much might be expected from our own Fair. It is likely that a result as favorable as this might have been realized had it not been for the financial panic that broke upon the country during the progress of the Fair. As it turned out these subscribers eventually received fifteen per cent of their investment, which the final statements of the Fair will show in a later part of this history. It spoke well for the generosity and public spirit of the people

that they subscribed as liberally as they did in the face of the dubious prospect of little or any returns from the investment in the stock of the World's Fair.

ARGUMENTS BEFORE CONGRESSIONAL COMMITTEES

Committees were appointed by Congress to listen to such arguments as might be advanced by the different cities contending for the Fair. Mayor Cregier, Thomas B. Bryan, and Edward T. Jeffery appeared before a committee of the United States Senate and presented the claims of Chicago. In the course of his speech Mayor Cregier said: "The people of the city of Chicago are united in the hope and desire and determination that, wherever this Exposition is held, wherever in the wisdom of this Congress of the United States it shall be assigned, it shall excel all former events of the kind, and not only prove eminently successful, but comport with the grandeur and dignity of this great and progressive nation. To this end Chicago stands ready to lend her support. Chicago has been growing, under the name of a city, only fifty-six years, but during those years the city was wiped out by the most terrible calamity that history records. She has arisen, recuperated and resuscitated by the power of will and new blood, to the proud position of second city on the continent, and metropolis of the West."

Mr. Bryan made an argument to have the Fair held in an interior city rather than at a city on the seacoast. He said: "The argument against holding the Fair in the interior, based upon the supposed loss of foreign visitors and exhibits because it is not held at the seaport, has been completely exploded by the prompt and hearty responses from leading merchants and the ablest journals of Europe in favor of Chicago." This argument was reinforced by numerous citations from letters written by European manufacturers in answer to a circular of inquiry which had been previously issued.

Mr. Jeffery presented to the committee a document certifying that five millions of dollars had been subscribed for the enterprise in Chicago. To this he added some striking statistics showing the construction activities of the city in the recent period, the receipts and shipments, the value of manufactured goods, the ability of Chicago to take care of a multitude of visitors, the railroad facilities, and the immense tonnage of its lake commerce. He also paid a tribute to the energy and enterprise of the people of Chicago.

The discussion of the question of the location of the Fair now shifted to the House of Representatives, where at length the vote in favor of Chicago was taken. Both houses concurred and the President signed the bill on April 25, 1890. The Act provided for "celebrating the four hundredth anniversary of the Discovery of America by Christopher Columbus, by holding an international exhibition of arts, industries, manufactures, and the product of the soil, mine, and sea, in the city of Chicago."

THE WORLD'S COLUMBIAN COMMISSION

The Act of Congress designated the name of the Fair as the "World's Columbian Exposition," and it remained throughout its existence under that name, though oftener referred to simply as the World's Fair. The Act provided for a governing body to be known as the "World's Columbian Commission," and conferred upon it large powers. It was empowered "in its discretion to accept for the purposes

of the 'World's Columbian Exposition' such site as may be selected and offered, together with plans and specifications of buildings to be erected for such purpose, at the expense of and tendered by the Corporation organized under the laws of the State of Illinois, known as 'The World's Exposition of 1892.' Provided, that said Commission shall be satisfied that the said Corporation has an actual *bona fide* and valid subscription to its capital stock which will secure the payment of at least five millions of dollars, of which not less than five hundred thousand dollars shall have been paid in, and that the further sum of five millions of dollars, making in all ten millions of dollars, will be provided by said Corporation in ample time for its needful use during the prosecution of the work for the complete preparation for said Exposition."

Other powers were conferred upon the Commission, such as determining the plan and scope of the Exposition, allotting space for exhibitors, and preparing the classifications, appointing judges and examiners, and generally having charge of all intercourse with the exhibitors and foreign nations. It was also required to appoint a Board of Lady Managers. A government building was provided for in the Act at a cost of four hundred thousand dollars, and the entire sum for which the government should be liable on account of the Exposition was not to exceed one and one-half millions of dollars. Articles imported from foreign countries for the sole purpose of exhibition were to be admitted duty free, but if afterwards any articles were sold for consumption in the United States they were to pay the customary duty.

The striking feature of this legislation was that it put the Fair under a dual authority. "In the planning of so great and complicated an undertaking," says the author of the History from which we have already quoted, "it is never possible to anticipate all contingencies, and in this instance it was inevitable that somewhere there should be a clash of jurisdiction between the two governing bodies. As a matter of fact, while many members of the National Commission served the Exposition faithfully and creditably, yet the Corporation not only provided by far the greater part of the necessary funds, but also did the greater part of the work."

The World's Columbian Commission, according to the Act, was to consist of two commissioners from each state and territory of the United States and the District of Columbia, besides eight commissioners at large, and was to exist no longer than until the first of January, 1898. As we shall presently see, the authority of this Commission seriously conflicted with that of the Illinois Corporation, and at one stage of affairs threatened to endanger the success of the Fair, but through mutual forbearance and harmony agreements, all friction was obviated, and the difficulties of the dual control overcome. The Commission was the body henceforth recognized by Congress and the President.

It was provided in the Act that the President should appoint the Commissioners, those from the states and territories on the nominations of the various governors, the others by the president directly. The two members of the Commission appointed from Illinois were Charles H. Deere, of Moline, and Adlai T. Ewing, of Chicago. On June 26, 1890, the Commission held its first meeting, and elected Hon. Thomas W. Palmer, of Michigan, as President of the World's Columbian Commission. Mr. Palmer remained president throughout the entire period of the Fair.

THE ILLINOIS CORPORATION

We will now follow the fortunes of the Illinois corporation. A few days before the Act of Congress was passed a meeting of the stockholders in the Illinois corporation was held and forty-five directors were chosen. This was on the 10th of April. The names of the gentlemen composing this first board are important and will be interesting no doubt to the readers of this history, and are as follows: Owen F. Aldis, Samuel W. Allerton, William T. Baker, Thomas B. Bryan, Edward B. Butler, William H. Colvin, De Witt C. Cregier, Mark L. Crawford, George R. Davis, James W. Ellsworth, John V. Farwell, Jr., Stuyvesant Fish, Lyman J. Gage, Harlow N. Higinbotham, Charles L. Hutchinson, Edward T. Jeffery, Elbridge G. Keith, Herman H. Kohlsaat, Rollin A. Keyes, Marshall M. Kirkman, Edward F. Lawrence, Thies J. Lefens, Cyrus H. McCormick, Joseph Medill, Andrew McNally, Robert Nelson, Adolph Nathan, John J. P. Odell, Ferdinand W. Peck, Erskine M. Phelps, Potter Palmer, J. C. Peasley, Eugene S. Pike, Martin A. Ryerson, Anthony F. Seeberger, W. E. Strong, Charles H. Schwab, Charles H. Waeker, Robert A. Waller, Edwin Walker, Frederick S. Winston, C. C. Wheeler, John R. Walsh, Otto Young, Charles T. Yerkes.

QUALIFICATIONS OF THE MEMBERS OF THE BOARD

"In selecting this Board, the leading spirits in the movement aimed to choose from among the prominent citizens men whose business ability was recognized, and who could be counted upon as possessing both the time and the inclination to serve the interests of the proposed Exposition. The latter qualifications were considered most essential, and gentlemen of the greatest prominence and business ability in several instances withdrew in favor of younger men, who could be more easily drawn upon for hard service."

Mr. Lyman J. Gage was chosen President of the Board of Directors on the 12th of April, 1890, and, on June 12th following, a special meeting of the stockholders was held, at which the name of the initial organization was changed from the "World's Columbian Exposition of 1892," to the "World's Columbian Exposition;" thus making the name identical with that used in the Act of Congress. The two organizations, however, remained separate, the one created under the Act being known as the "Commission," and the other as the "Board of Directors," or more simply as the "Directory." The name thus adopted was ridiculed by Eugene Field, one of the keenest paragraphers of the day, as a cumbersome title. "We hear nobody calling it the Columbian Exposition," he wrote. "That title fell into disfavor the very moment it was adopted by the authorities. The people never would have it. It is the World's Fair in spite of the sesquipedalian wiseacres whose talents seem to lie in the direction of unpopularity." In all official documents and formal statements, however, the name remains as adopted, but in speech and writing it is, as Field said, disregarded by the people, and the Exposition is generally known simply as the World's Fair.

BOARD OF REFERENCE AND CONTROL

In order to secure harmonious action on the part of the two governing bodies which we have described, a committee from each of them arranged a "Compact."

Under this Compact a Board of Reference and Control, consisting of eight members from each of the bodies, was created, upon which was conferred all the powers and duties of the Executive Committee of the Commission on the one hand, and of the like committee of the Directory on the other. To this Board was to be referred all matters of difference, and their action thereon should be conclusive, thus insuring harmonious action in the future. This Board of sixteen members, also called the Committee of Conference, was a compact organization of strong men, and its influence and work were powerful in securing the success of the Exposition. The members from the Commission were Thomas W. Palmer, of Michigan; James A. McKenzie, of Kentucky; George V. Massey, of Delaware; William Lindsay, of Kentucky; Michael H. de Young, of California; Thomas M. Waller, of Connecticut; Elijah B. Martindale, of Indiana; and J. W. St. Clair, of West Virginia. Subsequently Messrs. Lindsay and McKenzie were succeeded by R. L. Saunders, of Mississippi; and Harvey P. Platt, of Ohio. The members from the Directory were Lyman J. Gage, Thomas B. Bryan, Potter Palmer, Ferdinand W. Peck, Edward T. Jeffery, Edwin Walker, Frederick S. Winston, and De Witt C. Cregier. Messrs. Bryan, Palmer, Jeffery, Winston, and Cregier were subsequently succeeded by Harlow N. Higinbotham, Robert A. Waller, Henry B. Stone, Edward P. Ripley, and John J. P. Odell.

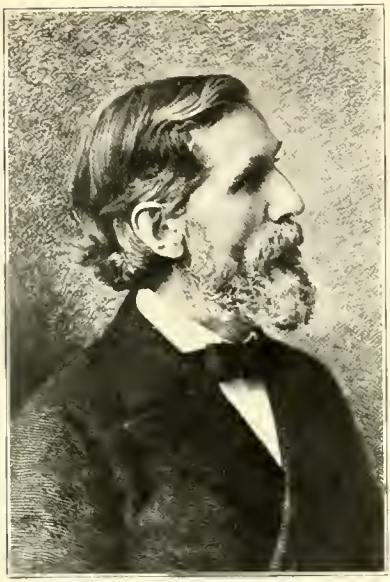
"These gentlemen were among the leading professional and business men of Chicago, and gave their services freely in the interest of the Exposition, often to the sacrifice of their own private affairs." The two bodies in their separate capacity had already agreed on the appointment of Colonel George R. Davis as Director-General of the Exposition, and upon the adoption of the Compact Colonel Davis began the organization of the Departments, and the several chiefs were soon after appointed. The departments and their chiefs were as follows:

Agriculture and Live Stock—W. I. Buchanan.
Horticulture and Floriculture—J. M. Samuels.
Fish and Fisheries—J. W. Collins.
Mines and Metallurgy—Frederick J. V. Skiff.
Machinery—L. W. Robinson.
Transportation—Willard A. Smith.
Manufactures—James Allison.
Electricity—J. P. Barrett.
Fine Arts—Halsey C. Ives.
Liberal Arts—Selim H. Peabody.
Ethnology—F. W. Putnam.
Publicity and Promotion—Moses P. Handy.
Foreign Affairs—Walker Fearn.

Many of these departments included branches within a broad title, as for example, "Liberal Arts," which embraced a vast array of Manufactured articles, Education, Engineering, Public Works, Architecture, Music, and the Drama.

WORK OF CONSTRUCTION

The next important step was the creation of a Construction Department, and the appointment of Daniel H. Burnham as Chief. Attached to the Construction



By courtesy of D. Appleton & Co.

HARLOW N. HIGINBOTHAM

President of the World's Columbian Exposition

By courtesy of D. Appleton & Co.

BERTHA H. PALMER
(MRS. POTTER PALMER)

DANIEL H. BURNHAM

Chief of construction and director of works of the World's Columbian Exposition

By courtesy of D. Appleton & Co.

THOMAS W. PALMER

Department were John W. Root, architect; Abram Gottlieb, engineer; and Messrs. Olmsted & Company, landscape architects. A Board of Consulting Architects was also selected, composed of Richard M. Hunt, George B. Post, McKim, Mead & White, Peabody & Stearns, Van Brunt & Howe, Burling & Whitehouse, Jenney & Mundie, Henry Ives Cobb, Solon S. Beman, and Adler & Sullivan; the last five firms and individuals being Chicago architects.

The Board of Architects met on January 10th, 1891. "The members visited the park and conferred regarding the task before them. Before the board had fairly organized and concentrated its attention upon the task John W. Root was stricken with pneumonia and died. His death caused universal grief in Exposition circles, for his genial qualities and his great reputation as an architect had endeared him to all. His loss was felt to be almost irreparable, and the Directory paid a tribute to his memory by placing upon their records a memorial of their appreciation of his great worth, his genius and exquisite taste, and their grief at his death."

The success of the building scheme was due to the fortunate selection of the Board of Architects who had been nominated by the Chief of Construction. At a meeting of this board held on February 22, 1891, preliminary sketches and drawings were submitted, and, after some modifications, were approved. It is related that when the architects assembled to submit the sketches for their several buildings they spent the afternoon in an examination and consideration of the various designs proposed. Each of them expressed willingness to modify his own views or plans for the sake of the unity of the whole group. St. Gaudens, who was present, sat all day listening, but scarcely speaking or moving; and, at the close of the meeting, came to Mr. Burnham, taking both of his hands in his own, exclaimed: "Do you realize that this is the greatest meeting of artists since the fifteenth century?"

SELECTION OF A SITE

Now that the organization of the working forces of the Exposition was completed, the Directory began to turn its attention to such matters as required early and decisive action. The first and most important question to be settled was that of the site upon which the buildings were to be placed. Sites were tendered upon the north, west and south sides of the city, the most available of which seemed to be the Lake Front east of Michigan avenue, though the area of this tract would be insufficient without extensive filling towards the lake. "While this area was not regarded as sufficient," says a writer in the authorized "History of the World's Columbian Exposition," "it was thought that the most important features of the Exposition could be located upon this site and the remainder separated from it and placed upon another site at Jackson Park. It was even thought practicable to fill a sufficient amount of land to enable placing the entire Exposition upon the Lake Front. This idea had many champions in spite of the great obstacles it presented. Its friends were willing to attack grave difficulties for the furtherance of the plan, on account of its many attractive features and the permanent benefits that would result to the city.

"Could it have been possible to locate the entire Exposition at this point, the comfort of the visiting public, relieved of the necessity for securing trans-

portation facilities to reach the Exposition, and the permanent benefit to the city occurring from the location of a magnificent park in the heart of the business district, would have been advantages worthy of great sacrifices, but nothing less than the whole plan would answer the purpose."

Nevertheless the Board passed a resolution favoring the Lake Front site, provided that the city of Chicago should fill up a space to include a total area of three hundred acres. An obstacle was at once met with in the refusal of the War Department to allow filling beyond the government dock line. Another resolution was now adopted including both the Lake Front and Jackson Park for the uses of the Exposition. Further obstacles to the use of the Lake Front appeared in the opposition of the property owners upon Michigan avenue to the erection of buildings at this point; and the heavy expense of filling the submerged portion of the land even as far as permitted by the government.

Meantime a committee examined the Jackson Park site, and, with the assistance of the well known landscape architect, Mr. Frederick Law Olmsted, made a report to the Board favoring this site. The Illinois legislature passed an act authorizing the Board of South Park Commissioners to grant the use of such parks as it controlled to the Exposition. Jackson Park embraced about five hundred acres in its area, and at that time was very slightly improved. The South Park Commissioners tendered to the Board of Directors of the Exposition the use of Jackson Park and the wide strip of land, afterwards known as the Midway, connecting this park with Washington Park, subject to the condition that the buildings to be erected should be removed at the close of the Exposition. The dual site idea was at length practically abandoned, and plans were prepared for the grounds and buildings to be placed in Jackson Park, and were submitted to the President of the United States for his approval, whose proclamation and invitation to foreign nations to participate in the exhibition of products was now awaited. These plans were of course far from having been matured, but on the basis of the requirements for such buildings as were known to be necessary a general plan was prepared under the direction of Mr. John W. Root, whose architectural genius and co-ordinating talent were invaluable for the purpose. This was among the last of Mr. Root's services to the Exposition.

"At one time it seemed certain," wrote a correspondent, in giving a sketch of the early history of the Fair, who said he obtained his information from Mr. Joseph Medill, "that it would be located on Lake Front Park, the park that fronts the breakwater harbor between Randolph and Twelfth streets, and had it not been for Mr. Lyman J. Gage, it would have been located there; and that mistake would have been a blunder of such a serious, if not fatal character, that all other mistakes would have been as dust in the balance by comparison." Fortunately, however, this project "was held back from consummation long enough to enable the minority of the commission to bring about a reaction," and so, finally, its location at Jackson Park was established.

GENERAL PLANS CONSIDERED

The World's Fair buildings and the arrangement of the grounds was the inspiration of the "Plan of Chicago," as set forth in the sumptuous publication of

the Chicago Commercial Club, issued in 1909. "The World's Fair of 1893," says the author of that work, "was the beginning, in our day and in this country, of the orderly arrangement of extensive public grounds and buildings. The result came about quite naturally. Chicago had become a commercial community wherein men were accustomed to get together to plan for the general good. Moreover, those at the head of affairs were, many of them, the same individuals who had taken part in every movement since the city had emerged from the condition of a mere village. . . .

"Then, too, the men of Chicago, trained in intense commercial activity, had learned the lesson that great success cannot be attained unless the special work in hand shall be entrusted to those best fitted to undertake it. It had become the habit of our business men to select some one to take the responsibility in every important enterprise; and to give that person earnest, loyal, and steadfast support. Thus the design and arrangement of the buildings of the World's Columbian Exposition, which have never been surpassed, were due primarily to the feeling of loyalty to the city and its undertakings; and secondly, to the habit of entrusting great works to men trained in the practice of such undertakings."

THE POPE'S LETTER

The letter of the Pope, Leo XIII, lent great encouragement to the friends of the Fair at a time when they were looking with keen interest towards foreign people for sympathy and co-operation. The letter was written in Latin, and was addressed to Thomas B. Bryan. It was dated February 27, 1892, and in the letter he said; "While we see on all sides the preparations that are being eagerly made for the celebration of the Columbian quarto-centenary in memory of a man most illustrious and deserving, . . . we hear with great pleasure that the United States has, among other nations, entered this competition of praise in such a manner as befits the vastness and richness of the country, and the memory of the man so great as he to whom these honors are being shown. Nothing, certainly, could be more splendid than what is told to us of the grand and magnificent exposition which that nation will hold at Chicago, bringing together every kind of produce and work which fruitful nature bears, and the artful industry of man creates."

CHANGES IN OFFICERS AND DIRECTORS

Mr. Lyman J. Gage resigned as president of the board of directors in April, 1891, because of the pressure of his private business. Shortly before he had presented his report, which was printed and distributed as the first annual report of the Exposition. "It was an admirable presentation," says Mr. Higinbotham, in his report made at the close of the fair, "of the clear ideas and the firm grasp which Mr. Gage had of the conditions and demands of the World's Columbian Exposition."

Mr. William T. Baker, one of the original directors, was then elected president, a man who had previously held the honorable position of president of the Chicago Board of Trade, and while on the directory had worked effectively for the success of the fair. The great problems before the directory during the year 1891 were those of finance, of adequate transportation facilities, and the

awakening among foreign nations of a sufficient interest in the Exposition. In all these matters Mr. Baker was a master hand at the helm of affairs.

Mr. Baker was again elected president of the directory at the annual meeting in April, 1892, and at the same time Mr. Harlow N. Higinbotham was elected vice-president. Howard O. Edmonds was elected secretary to succeed Benjamin Butterworth. Mr. Baker's health failed in the following July, and he resigned soon after. Mr. Higinbotham was then elected president of the company, a position which he thenceforth occupied with great ability throughout the whole remaining period during which the fair was in preparation, and afterwards when it was open to the world. In fact, owing to his able and efficient administration of affairs he has continued ever since at the head of the company, and through its long period of liquidation down to the present time.

Mr. Higinbotham was elected president of the World's Columbian Exposition in August, 1892, though as vice-president he had acted in that capacity for a considerable period before that time, by reason of the absence of the president in Europe. It will be remembered that Mr. William T. Baker was the president before the election of Mr. Higinbotham. Thus, during the most active period of preparations for the Exposition, Mr. Higinbotham was the guiding spirit in all the multifarious affairs that preceded its opening. The first great event in his administration was the dedication of the Exposition, on the 23d of October, 1892, where more than 100,000 people were gathered in the great Manufactures Building, then barely completed: the dedication was followed by the formal opening on May 1st of the following year. Few of us can understand, unless personally familiar with its affairs, what strain and stress was endured by the president and his associates during the whole period of the exposition, and especially during the period when twenty millions of money had to be provided, and was actually spent, before returns could begin to be realized.

The corporation known as the World's Columbian Exposition is still in existence, and Mr. Higinbotham is still its president. It was often said after its close that the great World's Fair "had passed into history." But no doubt Mr. Higinbotham has realized often enough since that time that for him, at least, the exposition had not by any means passed into history, and that the closing of its immense and world-wide affairs has required years of his time.

The glorious success of the exposition is to be attributed to a variety of favoring circumstances, to a public spirit that perhaps could only have been aroused in such abundant measure in the city of Chicago, but more than all to the president of the Exposition who was the genius, the gifted leader, the one who bore the burden of the tremendous responsibilities thrust upon him. It is no doubt true that our fellow townsman, Mr. Daniel H. Burnham, the wonderfully efficient director of works, is entitled to a large share of the glory and honor of what was achieved at the great exposition. His share of the honors is and must be recognized in any comprehensive and adequate account of the building of the Great Fair.

MR. BURNHAM AS DIRECTOR OF WORKS

Of Mr. Burnham's activities during the period of construction President Higinbotham says in his report: "The director of works seemed omnipresent. No

hour was too early, no weather too severe for him to be abroad, inspecting and directing the progress of the work and urging on his lieutenants. It was his custom to drive through the grounds in an open vehicle at daybreak or earlier, accompanied by his secretary, Montgomery B. Pickett, and a stenographer, and occasionally by one or more of his officers, making notes and informing himself as to the condition of the work in every part of the grounds. When the enormous space to be covered is considered, the labor and exertion of this feat can be appreciated. The wonderful physical strength of the director of works enabled him to perform this exertion without apparent effort or detriment to his health. At seven or half past seven o'clock his officers held a 'bureau meeting,' usually presided over by the assistant director of works, Ernest R. Graham, at which the director of works generally assisted. Officers were enabled to secure information, prefer complaints, and make requests, and minutes were kept of the proceedings. It was possible at these meetings for the director of works to urge on portions of the work which were behindhand, calling to account any one who appeared to be delinquent, and settling every complaint by prompt and vigorous measures. It can easily be seen that by these morning inspections and bureau meetings a vast amount of actual work could be planned ready for execution while the people of Chicago were arising from bed and preparing for breakfast. It is no wonder that the efficiency of the department was so great as to render easy of accomplishment things which would ordinarily be thought impossible within the time allotted."

FINANCIAL AFFAIRS

When, on June 12, 1890, the Illinois corporation changed its name from the "World's Exposition of 1892" to the "World's Columbian Exposition," the capital stock of the company was at the same time changed from $5,000,000 to $10,000,000, thus to enable it to comply with the terms named in the act of congress. "It was hoped," says the history from which we have quoted already, "that a considerable portion of this additional stock would be subscribed, thus giving the company additional funds with which to carry on its work, but it could not reasonably be expected that, after the vigorous canvass of the city made to secure the first $5,000,000, it would be possible to go over the ground again and raise an equal amount. The company was therefore compelled to look to other sources for the remainder of the sum that congress required it to furnish.

"There was but one other source, an issue of city bonds in aid of the exposition. This was impossible under the constitution of the state, the city having already a bonded debt as great as the constitution permitted. To accomplish the desired result it was necessary to obtain an amendment to the constitution. The situation was properly represented to the governor, Hon. Joseph W. Fifer, who thereupon convened the legislature of Illinois in special session on July 23, 1890. The legislature promptly passed a joint resolution authorizing an amendment to the constitution of the state, and providing for its submission to the people at the election to be held in the following November. This amendment, which empowered the city of Chicago to issue $5,000,000 of bonds in aid of the World's Columbian Exposition, received a substantially unanimous vote of the people of the state."

FIVE MILLIONS IN CITY BONDS

Immediately after the election, the city council passed an ordinance providing five millions of dollars for the use of the exposition. The list of subscriptions previously taken was now freshly scrutinized by the officers of the directory, and wherever delinquencies appeared it was found that they were more than made good by new subscriptions, so universally popular was the fair with the people. In fact the first five millions subscribed was increased by more than a million of new subscriptions, and when a financial statement was made up the next year after the fair had closed, there was shown a total of $5,614,425, collected on account of the capital stock subscribed by firms and individuals.

The time had now arrived to make known to the Commission that the required ten millions of dollars would be available for the uses of the Exposition. The Commission, which was the official channel of communication with the President, thereupon adopted a resolution declaring that it was satisfied "that an actual *bona fide*, legally binding subscription existed, from which the company would realize five millions of dollars, and that satisfactory guarantees existed for five millions more, thus complying fully with the obligation placed upon the city of Chicago by the act of congress." The President upon receiving this assurance from the commission issued the proclamation, now eagerly awaited, inviting foreign nations to participate in the exposition.

The President's proclamation was dated December 24, 1890, and recited as follows: That "whereas, satisfactory proof has been presented to me that provision has been made for adequate grounds and buildings for the uses of the World's Columbian Exposition, and that a sum not less than ten millions of dollars, to be used and expended for the purposes of said exposition has been provided in accordance with the conditions and requirements" of the Act of Congress of April 25, 1890, authorizing "an international exhibition of arts, industries, and manufactures, and the products of the soil, mine, and sea, in the city of Chicago," therefore it is declared and proclaimed that such international exhibition will be opened on the 1st day of May, 1893; and an invitation was extended to all nations of the earth to take part in the same "by appointing representatives and sending exhibits to the World's Columbian Exposition as will most fitly and fully illustrate their resources, their industries, and their progress in civilization." The proclamation was signed by Benjamin Harrison, president, and James G. Blaine, secretary of state. Thus the world was officially notified of the great approaching event, and preparations for the participation of foreign nations at once began.

ESTIMATE OF COST

The total cost of construction of the proposed buildings, and the improvement of the grounds, was estimated by the construction department at $12,766,890. A budget committee, appointed by the directory, also made an estimate, increasing the amount required for all branches of the exposition until May 1, 1893, to $16,075,453. The estimated cost was based upon the supposition that the entire exposition would be located in Jackson Park. "The committee pointed out that the limited area available on the lake front without filling would undoubtedly increase this estimate at least one million dollars."

After M. Berger, formerly director-general of the Paris Exposition of 1889, had made a careful study of the conditions existing at Chicago at this period, he named $17,000,000 as his estimate of the needed capital that would be required, a figure that coincided strikingly with the total amount named by the budget committee.

The estimates of the budget committee were adopted by the directory, which now began to realize the magnitude of its task. "During the following spring," says the author of the history, "while the work of dredging and filling was being rapidly pushed at the park, the plans of the buildings came in, one by one, from the distinguished architects who had them in charge. These were promptly taken up and prepared for contracting in the construction department. This department grew and extended itself rapidly from day to day as the needs of the work increased. With but little friction and without delay that splendid organization sprung up around the chief of construction which played such a great part in the results achieved. The discipline and efficiency of the force was greater than that of a veteran army, for it was composed of intelligent, well-educated professional men, each one eminent in his particular line of work. The chief of construction possessed wonderful enthusiasm, and he had the ability to impart it to those about him; he had success in choosing his assistants and lieutenants; he had wonderful capacity for attracting to him young men of ardent temperament but extraordinary capacity, whose vigor and enthusiasm, when tempered with the discretion of older heads, formed the best possible combination for the purposes in view."

GROUNDS AND BUILDING COMMITTEE

One of the committees created by the directory in the early part of 1890 was the "grounds and building committee," which was recognized in the "compact" previously referred to. This committee of seven members sat almost daily from the spring of 1890 until the 18th day of August, 1892. On this date the committee on grounds and buildings went out of existence after its splendid career of services, and its functions were assumed by the "council of administration" composed of four members only, two directors and two commissioners. The title of the chief of construction was, at the same time, changed to that of director of works. The council of administration was composed of the following gentlemen: H. N. Higinbotham, and Charles H. Schwab, of the directory, and George V. Massey, of Delaware, and J. W. St. Clair, of West Virginia, the two latter being members of the commission.

CHANGES IN THE DIRECTORY

Owing to changes occurring in the board of directors during the period of the exposition, the following gentlemen became directors in place of others who had resigned for various reasons, or whose terms had expired: C. K. G. Billings, Benjamin Butterworth, Isaac N. Camp, William J. Chalmers, Charles H. Chappell, Robert C. Clowry, Arthur Dixon, George P. Engelhard, George B. Harris, Charles Henrotin, Egbert Jamieson, William D. Kerfoot, Milton W. Kirk, William P. Ketcham, Herman H. Kohlsaat, Washington Porter, Alexander H. Revell, Edward P. Ripley, A. M. Rothschild, George W. Saul, George Schneider, James W. Scott, Paul O. Stensland, Henry B. Stone, Bernard E. Sunny, Hempstead Washburne, John C. Welling, George H. Wheeler.

FURTHER ASSISTANCE REQUIRED

As we have seen by the estimates made, even the ten millions of dollars required by the act of congress would not nearly provide the necessary funds to carry out the plans. Mr. Gage, the president of the board of directors, pointed out clearly the broad, general features of the situation. He said: "Why should this company assume the burden and risk of creating an exposition to cost fifteen or sixteen millions of dollars? Why not, instead, restrict the undertaking to a cost of ten millions of dollars, unless the national government, or some other responsible and equally interested party, shall first agree to provide the difference?" In answer to these questions he further said, "Neither the people of our city, of our state, of our country, nor of the world would be, or ought to be, satisfied with any exhibition that will not worthily exemplify the progress of the world in art, science, and industry, and typify the highest achievements in architecture, in art, and in all things that illustrate the utilization by man of the resources and powers of Nature."

But the friends of the fair had been frequently warned that the general government would do nothing in aid of the enterprise, further than the appropriation for its own building and exhibit. "The opposition of other cities that had competed for the location of the exposition was an additional ground for doubt as to the possibility of securing aid from the national treasury, yet it was the firm belief of every director that when the company and the city had met their fair share of the enormous cost of the great work, in which every citizen of the republic was interested, the generous recognition and co-operation of those outside of Chicago could reasonably be demanded. If this expectation should not be realized, there remained a last alternative of carrying the enterprise through and compelling the patriotic citizens of Chicago to bear the heavy burden unaided. And there is little reason to doubt that this would have been done had the necessity arisen."

THE APPEAL TO THE GENERAL GOVERNMENT

Meantime the scope of the exposition and the vast extent of its undertakings rendered it necessary that its case should be presented to congress with a request for its aid. The commission, in the autumn of 1891, gave its approval to the work already undertaken and completed by the directory, and adopted a resolution approving the plan of making an appeal to congress for a loan in aid of the exposition. This, however, did not meet with the approval of the directory. Their plan was to secure an appropriation outright rather than a loan. "They did not consider it proper that the government, in granting financial aid to this national undertaking, after the city had expended over ten millions of dollars upon it, should receive in return a first lien upon the proceeds of the entire investment," thus exhausting the company's capacity to borrow, which would still possibly be necessary before the fair could be opened and the returns begin to flow in. "What the company insisted upon as the proper expression of the financial responsibility of the government for the exposition was an appropriation in its aid without any requirement as to repayment."

Little doubt had been felt that aid from the national government would be forthcoming, provided the company fulfilled its duty, administered its affairs properly,

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THE COURT OF HONOR, FROM THE ADMINISTRATION BUILDING, FACING THE PERISTYLE

and energetically carried the work forward on the grand plans that it had caused to be prepared. In December, 1891, congress began to consider the matter seriously, and a bill was introduced providing for an appropriation of five millions of dollars in aid of the exposition. A committee of congress visited Chicago in the following March and made an investigation on the spot. Their report closed with this tribute to the exposition: "Your committee express without reserve their confidence in the assured success of the exposition. Fifty-six nations and colonies have accepted the invitation to participate in the enterprise, and have appropriated $3,783,000 for that purpose. It is expected that twenty other foreign nations will also be represented. Complete exhibits will be made by all countries which promise attendance, twenty-six of which will erect special buildings for their own displays. Thirty states and territories of our own republic will erect buildings and make special exhibits, for which $3,182,500 has already been provided. It becomes obvious, therefore, that the expenditures of the local corporation, of individual enterprise of the states and territories, and of our own and all foreign governments, will reach the stupendous aggregate of not less than thirty millions of dollars for exhibition purposes. In its scope and magnificence the exposition stands alone. There is nothing like it in all history. It easily surpasses all kindred enterprises, and will amply illustrate the marvelous genius of the American people in the great domains of agriculture, commerce, manufactures, and inventions, which constitute the foundation upon which rests the structure of our national glory and prosperity."

There were many difficulties, however, in the way of enacting the proposed legislation. The political situation entered into and complicated matters. A presidential election was approaching, and public measures were invariably considered with a view to their bearing upon this event. It was intimated that if the company would accept a loan instead of a direct appropriation, this form of aid might be secured. The board of directors rejected this proposition, and refused to be put in the attitude of suppliants for favor, when they were conscious of the justice of their demands. The struggle continued during a great part of the following summer, until it became apparent that the bill as introduced could not pass. Further efforts along this line were abandoned.

At length, however, a compromise was proposed, and the "Souvenir Coin Measure," as it was called, was introduced and passed without material opposition. This measure became a law on the 5th of August, 1892, and provided that two and a half million of dollars in the form of "Columbian Half Dollars" should be coined, according to devices and designs prescribed by the director of the mint. These coins were to be paid out by the secretary of the treasury to the World's Columbian Exposition upon estimates and vouchers certified to by the president and director-general, "for the purpose of aiding in defraying the cost of completing, in a suitable manner, the work of preparation for inaugurating the World's Columbian Exposition." This appropriation was coupled with a condition that the fair should be closed to the public on Sundays. Immediately afterwards a plan was devised to sell these souvenir coins at a premium, which eventually increased the amount received by the exposition from this source to a considerable extent.

The advantage thus derived, however, was offset by the subsequent action of

congress in saddling upon the exposition the expenses incurred by the commission in providing for judges and awards. These expenses were estimated to be $570,880, and this amount was ordered by congress to be deducted from the two and a half millions already appropriated, and thus the net amount of the appropriation was reduced to $1,929,120. But the premiums received brought this up again to a total of $2,607,854. It was hoped that all the five million half dollars would be sold at one dollar each, but owing to delay in delivery by the mint the enthusiasm shown at the beginning of the sale, and which at first ran high, soon evaporated, and a large number of them were left to be disposed of eventually at their face value.

WITHHOLDING THE FUND FOR "JUDGES AND AWARDS"

The action taken by congress, six months after the passage of the "Souvenir Coin Measure," in charging against it the amount of $570,880 required by the commission "for the judges and awards," was looked upon by the directory as unjust and wholly beyond the purposes expressed in the act itself. The act, as we have quoted above, specified that the souvenir coins were to be paid out "for the purpose of aiding in defraying the cost of completing, in a suitable manner, the work of preparation for inaugurating the World's Columbian Exposition." It was a departure from the original intention of the act, therefore, to require that the exposition company should bear this new burden at all. The subject of awards was wholly within the jurisdiction of the commission, and the company had no control over it nor responsibility for it. "The commission, through its committee on awards," says President Higinbotham, in his report, "had prepared plans and estimates for judging exhibits and making awards thereon, and it asked for an appropriation from congress to defray its expenses, as in the case of other branches of the commission's work. The amount estimated by the committee on awards to be necessary was $570,880. Instead of making an appropriation for the purpose, congress directed that an equal amount of souvenir coins be withheld from the company until it gave security to the secretary of the treasury that an appropriation of the amount needed for this purpose would be made out of the company's funds."

In the report we have just quoted from, President Higinbotham vigorously denounces the action taken by congress in this matter. "At this time," he says, "when the company was relying, almost from day to day, on the remittances of souvenir coins to replenish its treasury, congress diverted this $570,000 of its appropriation to a purpose not in any way connected with the 'completing of the work of preparation for inaugurating the World's Columbian Exposition.' Such a thing could not have been attempted between individuals in the great business world without speedy redress through legal process. This act aroused indignation among the citizens of Chicago. The recollection of it is still bitter to the officers and directors who were compelled to bear the additional burden thus laid upon the company in the hour of its need."

ISSUE OF EXPOSITION BONDS

During the last few months of the period before the fair was opened the financial problem hung heavy on the hands of the directory. The bonds issued by the city

of Chicago for five millions of dollars were readily sold and became available for the purposes of the exposition. The financial situation at this time showed the resources of the exposition to consist of the following:

Capital Stock and City Bonds	$10,700,000
Souvenir Coins	2,500,000
Receipts Prior to Opening	330,000
Total	$13,530,000

It became necessary now to resort to the anticipated issue of exposition bonds, and, accordingly, an issue of five millions in bonds was authorized. The estimates in the later revised budgets showed such an increase in the amount required before the opening day that the total sum necessary would be $19,437,827. Thus even with the proposed sale of Exposition bonds the total of resources would only amount to $18,530,000, still nearly a million below the requirements. But there were amounts which would become available in the meantime, such as refunds from various exhibits, state and foreign governments, and premiums from souvenir coins; and these helped to bridge over the deficit.

The situation was made more difficult by the failure of the exposition bonds to find a ready sale as it had been hoped they would. This source of trouble, however, was happily averted by the aid of the railroad companies, several of which took large blocks of the bonds; and of the banks, which made heavy advances on the security of about a million dollars' worth of souvenir coins still held by the exposition awaiting sale at the premium it was hoped to be realized.

When, at last, the opening day arrived, on the 1st of May, 1893, it found the financial managers of the exposition at the end of their resources. The long period of disbursements without earnings was at an end. "For three years," says Mr. Higinbotham, "while we had been building, we had been struggling to provide the means to reach with credit and success the opening day of the exposition. That day dawned, and the first great financial problem, that which related to the raising of funds required to open the exposition, was brought to a final solution. I repeat that one who had not shared in some way in that task can not appreciate its gravity and the deep, heartfelt thankfulness of those who had borne it, when they saw the end of their labors, and the great exposition practically complete, unfolding its noble and beautiful proportions to the eyes of the world."

We will now return to the great occasion of the dedication in the month of October preceding, a proper account of which should here be given, before describing the opening and continuance of the fair through the six months of its existence. It must be remembered that the "Dedication" and the "Opening" were two different events, the significance of and reasons for which will be explained in the following pages.

CHAPTER XLII

DEDICATION AND OPENING OF THE WORLD'S FAIR

FORMAL DEDICATION IN OCTOBER, 1892—IMPRESSIVE CEREMONIES—IMMENSE CONCOURSE OF VISITORS—PERFECT WEATHER CONDITIONS—THE COLUMBIAN ODE—INTERVAL OF SIX MONTHS—INCOMPLETE PREPARATIONS—UNEXAMPLED RAPIDITY OF BUILDING OPERATIONS—THIRTY-ONE MILLION ADMISSION TICKETS PRINTED—THE FIRE INSURANCE PROBLEM—OPENING DAY, MAY 1, 1893—PRESIDENT CLEVELAND'S ADDRESS—STARTING THE MACHINERY—DEPRESSING CIRCUMSTANCES—FINANCIAL PANIC EMBARRASSES THE MANAGEMENT—DIFFICULTIES ENCOUNTERED BY THE DIRECTORY—ATTENDANCE RECORDS—FOURTH OF JULY VISITORS—ADMINISTRATION DETAILS—MR. HIGINBOTHAM'S HEAVY RESPONSIBILITIES—EFFICIENT COOPERATION OF ASSOCIATES—THOMAS B. BRYAN'S SERVICES.

THE FORMAL DEDICATION

THE date fixed for the dedication of the World's Columbian Exposition was October 21, 1892, the four hundredth anniversary of the Discovery of America by Christopher Columbus. This was the first great task encountered by the exposition managers, and caused them much labor and grave anxiety; but the experiences gained on this occasion were of great value in the management of the multitudes of visitors during the progress of the fair. The opening of the fair to exhibitors and visitors was not to take place until the 1st of May following, but "the dedication of the exposition buildings six months before the enterprise was to be actually inaugurated," says the report, "was approved as a means of disseminating throughout the country a knowledge of the grandeur and extent of the exposition, and of the completeness of the equipment which Chicago had prepared for it." The grounds and the buildings were yet in an incomplete condition, but the entrances and driveways had been made passable, while the great building in which the exercises were to be held, though still far from complete, had been enclosed and was temporarily fitted up for the purpose.

"The civic parade, upon the day preceding the dedication, was participated in by many thousands of people, including all the non-military organizations of the city, and the governors of most of the States of the Union, accompanied by the members of their respective staffs. It was a most inspiring scene. The procession occupied more than four hours in passing the grand stand at the custom house, where it was reviewed by Vice-President Morton."

THE DEDICATION CEREMONIES

The task of handling the crowds on the day of the dedication exercises was the first severe strain placed upon the managers of the fair. The means of travel were

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SCENE IN THE MANUFACTURES BUILDING ON DEDICATION DAY, OCTOBER 22, 1892

yet far from having reached the degree of completeness that were afterwards attained. Only those who had received invitations, one hundred thousand of which had been issued, were supposed to attend the dedication exercises, but as it was observed that great crowds had gathered at the entrances, the gates were thrown open later in the day and everyone admitted regardless of whether they were invited or not. The transportation lines, however, did effective service, the day passed without accidents, and the crowds were handled to the satisfaction of all.

The entire central part of the city was cleared by the police for the convenience of private conveyances. Carriages conveying persons officially connected with the ceremonies were passed through the police lines by means of cards previously issued. The members of the board of directors, the World's Columbian Commission, and the board of lady managers, and the distinguished guests of the occasion formed in line, in carriages, on Michigan avenue near the Auditorium, whence they were escorted by United States troops south on that avenue to Twenty-ninth street, where they were joined by Vice-President Morton and party and President Palmer of the commission. From this point the procession moved to Jackson park by way of the Midway Plaisance.

Across the tracks of the Illinois Central Railroad, which had not yet elevated its road-bed, a large temporary wooden viaduct was constructed, over which the procession passed to the great Manufactures building, in which the exercises were to be held. At the middle of the east side of this building was erected a stand or platform capable of seating twenty-five hundred people. Over it decorations of flags and bunting were effectively massed, and at the south end, five hundred feet away, was another stand for the chorus of five thousand voices under the direction of William L. Tomlins, assisted by an orchestra of over two hundred pieces led by Theodore Thomas. In front of the platform for the speakers were seats for sixty thousand people. "The scene in the Manufactures building will never be forgotten by those who witnessed it," says Mr. Higinbotham in his report. "The grand platform was occupied by officers of the national government, members of the diplomatic corps, officers of the various states, senators and representatives, directors and commissioners. The eye and brain could scarcely comprehend the vastness of the audience stretching out before this platform, nearly every one seated or being conducted to seats by soldiers and the Columbian Guards in the most orderly manner. There was little motion, but the air was resonant with an indescribable hum of voices." On great battle-fields, where immense numbers of men are present, the shouts, outcries and rumbling thunder of cavalry charges, blends itself and is softened by distance into a continuous hum, often described by participants. An artillery officer at the battle of Waterloo noticed this humming noise, a noise quite apart from the rattle and roar of the firing. He wrote of it as follows: "We were enveloped in thick smoke, and, in spite of the incessant roar of cannon and musketry, could distinctly hear around us a mysterious humming noise, like that which one hears of a summer's evening, proceeding from myriads of insects." This remarkable humming noise, characteristic of vast assemblages, strikes the ear with a sense of strangeness and mystery. It was referred to by Dr. Peabody in the following passage:

"The day of dedication gathered the largest audience ever assembled under one roof. It mattered not that the ostensible purpose of the occasion was absolutely

defeated by the vastness of the multitude. The immense hall was filled with a resonant murmur, which resembled the soughing of the foliage in a boundless forest or the rhythmic laughter of unnumbered waves, and yet overpowered the reverberating hoof beats of a troop of cavalry riding through the adjacent aisles. The impressive ceremonies were duly observed; but the oracles were dumb, no voice rang through the arched roof. The audience only saw the prayer of the right reverend ecclesiastic, saw impassioned bursts of oratory and lofty strains of poetry; they heard but faintly strains of far-off music, swelling and receding; yet no one of that great assemblage will ever forget the sense of exultation that he was permitted a share in the grandeur of that unique and most impressive ceremony."

So great was the assemblage of people in this building that the majority of them were beyond the reach of the speakers' voices. One who was present said: "We found that although seated only about half way between the platform and the rear seats, we could not hear a word uttered by the speakers on the platform. Indeed, we could not hear a sound even, and the movements and gestures of the speakers were complete pantomime, producing a very singular effect." There were twenty-five acres of human beings in the audience, which numbered from one hundred thousand to one hundred and fifty thousand people, according to different estimates, said to have been the largest assemblage ever gathered under one roof. Perfect order prevailed. The dignity of the occasion seemed to have cast a spell over the audience.

THE EXERCISES WITHIN THE BUILDING

The dedicatory ceremonies were opened with the "Columbian March," composed by Professor J. K. Paine, of Cambridge. This was followed by a prayer offered by Bishop Charles H. Fowler, of the Methodist church, after which an address was made by the director-general, Colonel George R. Davis. Hon. Hempstead Washburne, mayor of the city, delivered an address of welcome and a tender of the freedom of the city of Chicago to the vice-president and the representatives of foreign nations. It will be recalled that Carter H. Harrison, Sr., Chicago's famous "World's Fair Mayor," did not enter upon his fifth and last term as mayor until the following spring. A portion of the "Columbian Ode," by Miss Harriet Monroe of Chicago, was read, and other portions, which had been set to music, were rendered by the chorus. The president of the board of lady managers, Mrs. Potter Palmer, then delivered an address on the work of the lady managers. President Higinbotham, of the board of directors, then tendered the buildings to the president of the commission, Hon. Thomas W. Palmer, who in turn presented them to the vice-president of the United States, Hon. Levi P. Morton. The vice-president then, on behalf of the president of the United States, formally dedicated the buildings in an address closing with the following words: "In the name of the government of the United States I hereby dedicate these buildings and their appurtenances, intended by the government of the United States for the use of the World's Columbian Exposition, to the world's progress in arts, and in manufacture. I dedicate them to humanity."

An oration followed delivered by Hon. Henry Watterson of Kentucky, which was followed again by an oration delivered by Hon. Chauncey M. Depew of New York. The ceremonies were concluded with prayer offered by Cardinal Gibbons of Baltimore, clad in the full robes of his office. A national salute was fired by

the artillery as the ceremonies came to a close. "The fact that the immense assemblage gathered in the Manufactures building," says Mr. Higinbotham, "witnessed the impressive program, and dispersed without an accident worthy of note, either within or without the half finished grounds, spoke well for the care, intelligence, and efficiency of the officers and employes of the company, of the officers of the army, and of the various transportation lines."

The authorities had even provided a luncheon for the multitude of guests on the occasion. It was served in the galleries for those within the building, and at other places for those without. More than seventy thousand persons were supplied with refreshments at the cost of the exposition. "From the number of invitations issued," says the report, "the magnitude of this undertaking will be understood. It was manifestly impossible to serve a satisfactory meal; the purpose was to offer merely a slight refection to enable persons within the park to withstand the fatigue of waiting for the grand event to take place."

ABSENCE OF THE PRESIDENT

President Benjamin Harrison was prevented from attending the dedication by Mrs. Harrison's severe illness, which soon afterward proved fatal. Vice-President Morton represented the president upon this occasion.

It will be remembered that the country was on the eve of a presidential election at this time. Mr. Harrison was the candidate of the Republican party for a second term, and Grover Cleveland, who had ended his first term as president four years before, was the candidate of the Democratic party. An invitation had been sent to Mr. Cleveland to attend the dedication exercises, but he declined in a letter which showed an intelligent appreciation of the situation as it existed and a characteristic delicacy of feeling. "I should be very glad," he wrote, "to be present on this occasion, and there show my appreciation of its importance, if I could do so solely as an ex-president of the United States. I am sure, however, that this is impossible; and I am unwilling to undertake a trip which from beginning to end, despite all effort on my part, would be regarded as a political tour, made by a candidate for the presidency." To this he added that his general aversion to such a trip, in this particular instance, was increased by his knowledge of the circumstances "which detained at the bedside of his sick wife, another candidate for the presidency."

"The representatives of the press who attended the ceremonies included many distinguished journalists, and all were so thoroughly impressed with the magnitude of the preparation and the grandeur and scope of the exposition, that praise and commendation for the great enterprise awoke all over the country, even in quarters where only adverse criticism had been heard before." "The perfect weather," says the report, "contributed to the success of the occasion. The sunshine, the cloudless sky, and the spring-like air lent a charm to the grounds that seemed to more than atone for their unfinished condition. We may count the dedication on October 21, 1892, as possibly the most successful of all the pageants, ceremonies, and celebrations which occurred in connection with the exposition."

THE COLUMBIAN ODE

The Columbian Ode, written by Miss Harriet Monroe, was a distinctive feature of the dedication. It was a poem of about four hundred lines in length. Some

passages are here quoted which will give an idea of its quality and the dignified sweep of the metrical arrangement. The poem should be read in its entirety. It opens with these lines:

"Columbia! on thy brow are dewy flowers
Plucked from wide prairies and from mighty hills;
Lo! towards this day have led the steadfast hours,
Now to thy hope the world its beaker fills.
The old earth hears a song of blessed themes,
And lifts her head from a deep couch of dreams."

Continuing, the poet refers to the assembling of the nations in honor of the great event:

"Spain, in the broidered robes of chivalry,
Comes with slow foot and inward-brooding eyes."

Following next in the procession of the "queenly nations, elder-born of time," comes England,

"Hearing in thine her voice, bidding thy soul
Fulfill her dream, the foremost at the goal."

Next comes Columbia's first friend and ally,

"And France, who once thy fainting form upbore,
Brings beauty now where strength she brought of yore."

Then tribute is paid to the Norseman who sailed "to the green Vineland of the long ago;" to Russia, coming "from realms of sun and snow;" to Germany, who "casts afar her iron robes of war;" and Italy, opening "wide her epic scroll;" and the "calm Orient," saluting "thy conquering youth."

"Lo! unto these the ever living Past
Ushers a mighty pageant."

The poet then goes back to the discovery. She continues thus:

"And the forests, heavy and dark and deep
With the shadows of shrouded years,
In a murmurous voice, out of age-long sleep,
Ask the winds; What creature rude
Would storm our solitude."

The reference to the Father of his Country follows in these lines:

"Ah! hero of our younger race!
Great builder of a temple new!
Ruler, who sought no lordly place;
Warrior, who sheathed the sword he drew."

On down the generations the poet passes to Lincoln, one

"Who held a warring nation in his heart;"

whose mighty task was performed

"Through blood and tears that we might walk in joy."

The combatants in the great strife for the Union are also celebrated, the men "who in a noble conflict fell, the brave, who having fought, can never die."

The scene is changed and the poem closes with an apostrophe to Columbia, pictured as a goddess rising "from the misty sea."

"Thy brows were flushed with dawn's first light,
By foamy waves with stars bedight
Thy blue robes floated free.

* * * * *

"Lady of Beauty! thou shalt win
Glory and power and length of days;
The sun and moon shall be thy kin.
The stars shall sing thy praise.
All hail! we bring thee vows most sweet
To strew before thy wingéd feet,
Now onward be thy ways."

THE INTERVAL OF SIX MONTHS

Between the dedication and the opening day an interval of a little more than six months intervened. After the dedication the temporary fittings for the accommodation of the visitors on that occasion were removed, and the work of completing the unfinished buildings and preparing for the exhibits was resumed with redoubled energy. "After the dedication had occurred," says the president's report, "the final goal, May 1, 1893, was in sight, and every nerve was strained in the effort to reach it in satisfactory condition. The work to be done was enormous. Doubts as to the possibility of completing the exposition were freely expressed, not only by those outside of the organization and coming in contact with its work only as spectators and critics, but by many of those identified with its management."

The situation, indeed, looked serious enough. "The dedication, with its beautiful weather and its many triumphs, revealed a glimpse of the park as it was expected to appear later. The day seemed to prefigure the ultimate success and to indicate that it was within easy reach. Nothing could have been farther from the truth. Winter set in with unusual severity and manifold difficulties appeared. Thousands of cars, containing hundreds of thousands of packages of exhibits of every size and weight, were expected to come into the park within the next few months, to be handled and installed by May 1st. Few of them were arriving, and a traffic congestion later seemed unavoidable.

"But the alarming feature was not the delay in the arrival of the exhibits so much as the fact, now evident, that the buildings were in no condition to receive

them. A snowfall, succeeded by a thaw, revealed acres of leaky roofs, insuring the irreparable damage of exhibits placed beneath them. The most serious case was at the building for Manufactures and Liberal Arts, both on account of the vast number of exhibits which it would contain, and the great difficulty of working upon this roof during cold and stormy weather." The construction department, under Mr. Burnham, took hold of the matter in characteristic fashion, and put hundreds of roofers upon the building, and at length it became fairly satisfactory. "At one time the building was damaged by avalanches of snow, which slid from the great curved central roof and fell into the valley between the central hall and the lateral roofs. The falling masses of snow and ice destroyed the lower roof, and in some instances both the gallery floor and the ground floor beneath."

FALSE REPORTS CIRCULATED

"Owing to delays," continues Mr. Higinbotham's report, "which had occurred in some departments, in the allotment of space, and the inevitable dissatisfaction of some exhibitors with the space allotted to them, withdrawals of applications for space became frequent, and much alarm was felt over the loss of exhibits for various causes. Some of these losses were irreparable and were greatly deplored by the management, but in most cases their importance was exaggerated, particularly by the newspapers of the several localities in which the resigning applicants were engaged in business. Indeed, the temper of the press was such as to cause many misgivings, especially as the management was naturally sensitive to criticism, and because only the unfavorable criticisms came to its attention. Doubtless much was said in the way of praise and encouragement, but of this the management seldom heard. Only the exaggerated reports and false statements came to its ears.

"The erroneous statements so widely circulated seemed sufficiently general to justify the fear that the exposition was being put in an unfavorable light before the world, to the detriment of the expected patronage. The condition of the roofs was widely published, and made much worse than was the fact. The incomplete condition of the grounds and buildings was noised abroad, coupled with the assertion that the exposition would not be ready in time, an assertion very easy to make and very hard to disprove. Criticisms as to the general plan and the details of the exposition; statements that great discomfort would be experienced in viewing it; that the grounds were full of side shows and special attractions to which admission fees would be charged, each being part of a general plan to defraud the public; that restaurant prices would be extortionate; that hotels and boarding houses in Chicago, and in fact all lines of trade, were waiting for a chance to practice extortion upon visitors; these were the chief items of news in regard to the exposition which came to the attention of the management, and which it was bound to counteract and disprove by every means in its power."

The president of the exposition, recognizing the necessity of giving proper assurances to the public, issued an address on March 25th, in which he stated that "the exposition will be opened in readiness for visitors May 1st;" that the admission fee of fifty cents will entitle a visitor to see and enter all the exposi-

tion buildings, with a few named exceptions including the special attractions of the Midway Plaisance; that "imposition or extortion of any description will not be tolerated;" that free medical and emergency hospital service will be provided on the grounds; and that ample public comfort stations will be located at convenient points about the grounds and buildings. These assurances satisfied the public of the intentions of the management, in which a strong confidence was everywhere shown, and the plans announced were fully carried out during the exposition season.

THE PREPARATIONS CONTINUED

During the winter and spring the exhibits began to flow into the park by rail and truck, until by the time the installations were completed seventy-nine hundred car loads had been received containing about sixty thousand tons of material and exhibits, besides twelve thousand tons received by teams. The empty packing cases were removed to specially constructed warehouses, where they could be restored to exhibitors at the close. Nearly sixty thousand packing cases were thus cared for, of which only forty-two hundred were left unclaimed.

Under the provisions of the act of congress and the regulations of the treasury department the buildings and grounds of the exposition became in effect a bonded warehouse, in charge of the United States collector of customs, John M. Clark. All articles imported from foreign countries for the sole purpose of exhibition were admitted duty free, but such as were sold in this country paid the usual duty. This involved an immense amount of labor on the part of the collector and his deputies, and at the end of the period it was found that about one-quarter of all the foreign exhibits remained in this country, and the rest were returned to the countries from which they came. The value of the exhibits which were returned amounted to $12,154,550, while articles to the value of $1,552,230 were acquired by various universities, colleges, schools, museums, etc., and articles valued at $2,566,852 were sold on the grounds. The total receipts of the collector's office at the exposition was $836,786, while the expenses incurred were $234,684, thus leaving the amount of $602,102 for the benefit of the United States treasury.

ADMISSION TICKETS

It was during this period that the department of admissions was organized, and a system of admission tickets fixed upon for the enormous attendance which was expected, also for a system of free admissions for those entitled to this courtesy and for those whose business brought them within the exposition grounds. The engagement of a force of ticket sellers, ticket takers, inspectors and office employes, was also required. Eighteen separate entrances were established where tickets could be procured, besides many other places at different points throughout the city.

It was at first proposed to use a fifty cent silver coin as a ticket of admission, but this plan was abandoned in favor of a series of finely engraved tickets which would be desirable as souvenirs and often retained by the purchaser, as well as a series in a cheaper style of printing which could be changed at any day. The engraved tickets were artistic in design and handsomely printed like bank notes, and the exposition profited greatly by their sale. They were in four series, a

vignette portrait of Columbus on one, a typical Indian on another, and portraits of Washington and Lincoln for the others. Six millions of these souvenir tickets were ordered, while of those in a plainer form of printing there were twenty-five millions ordered. The exposition therefore had two forms of general admission tickets, the first being the elaborately engraved ones good for admission on any day, and the second being the inexpensive ticket sold at the gates, and good only on the day of sale. The expectation that the engraved tickets would be purchased and retained as souvenirs, and never presented at the gates, was realized to a gratifying extent, and in fact the sale of these tickets continued even after the exposition had closed.

For those who were entitled to free admission several forms of passes were used. For most of the free admissions, a photographic pass was provided, in the form of a book, which bore on the inside of the cover, the photograph and signature of the person entitled to use it. The rest of the book was made up of coupons, one for each day of the exposition. For laborers and temporary workmen another kind of ticket was used, good only for a short period, and to be presented at certain entrances only. "It cannot be said," says the report of the superintendent, "that the pass system was not abused. No one connected with the work ever hoped to prevent such abuse, but the outcry frequently made during the exposition season against the system in use, and the criticisms urged against the efficiency of the department, were in most cases unmerited." Prompt steps were taken to correct abuses and to bring the details of the system within the requirements laid down by the rules.

In the month of July it became apparent that there was a large number of passes outstanding which were being used by persons no longer entitled to them. The council of administration then ordered that the passes should all be freshly scrutinized and countersigned by the superintendent of the department before they were made use of further. "By means of this order," says the report, "more than three thousand passes were canceled, the owners of which had either left the service and were no longer entitled to a pass, or had never been entitled to one, but had secured it through lack of discipline in certain departments, or through ignorance of the regulations."

INSURANCE ON EXPOSITION PROPERTY

In the course of the various narratives pertaining to the exposition, the writer has supposed that the reader will be interested in the financial vicissitudes of that great enterprise, involving the expenditure of nearly twenty millions of dollars before returns began to flow in and recoup the vast outlays which had been made. Thus he has given especial attention to the details of procuring the funds, their disbursement, the difficulties encountered, and the burdens borne by those men who courageously advanced at the front and overcame all adverse conditions, finally winning a victory that stands among the greatest achievements in the history of Chicago. It is not enough to recount here the physical features of the exposition. The writer who would wish to attain some degree of fullness in the account must look behind the curtain, and describe the persevering and prolonged efforts made to bring the enterprise to a successful issue. We have already de-

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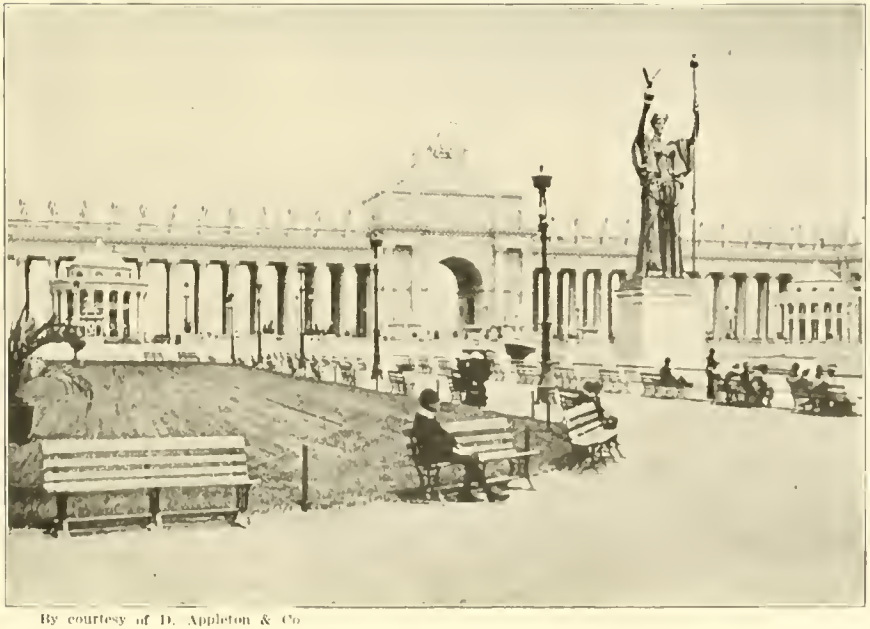
THE FINE ARTS BUILDING



By courtesy of D. Appleton & Co

THE PERISTYLE, LOOKING SOUTHEAST

tailed the obstacles which were overcome in the earlier stages of the work of placing the exposition on a secure financial foundation, and the following paragraphs will further illustrate some other phases of the problems presented, and the solutions arrived at.

The placing of insurance against fire on the property of the exposition caused considerable perplexity to the management. "The exposition property was never properly covered by insurance," says the president in his report. "The risks were considered extra hazardous and companies were unwilling to write policies. Sufficient consideration was not given to the extraordinary precautions taken to prevent fires, and to the facilities provided for quenching any which did occur. As a matter of fact, while small fires were frequent in the park, and several large fires occurred just outside the inclosure, there was never any serious damage by fire to any of the company's property within Jackson park. Only one bad fire occurred during the exposition season, that which destroyed the cold storage warehouse. This building was erected under a concession contract and was not the property of the company.

"During the construction period insurance was written through a committee of insurance agents who endeavored to distribute the risk among the companies doing business in Chicago. * * * While exhibits were arriving the companies began to cancel policies upon buildings and write up to their maxima upon exhibits, leaving the exposition company unprotected. Thus the amount of insurance upon buildings was constantly shrinking, until the president, in whose discretion the matter had been left, finding that a considerable amount was being expended for premiums without adequate or even partial protection to the company, canceled all remaining insurance. The management thereafter intensified its efforts to protect its property from fire so thoroughly as to render loss from this source a practical impossibility."

INSURANCE ON ART WORKS

The owners of such works of art as formed the loan collections on exhibition required that they should be insured, but it was found impossible to place the risks with reputable companies. The estimated value placed upon the loan collections aggregated about three millions of dollars, the value in most cases being fixed at the amount paid for the work itself by the owner, without making allowance for appreciation. "Finally," says the report, "the board of directors authorized the execution of contracts, in the nature of insurance policies, whereby the exposition became responsible for these exhibits as an insurer." No losses occurred, however, which fortunate result "must be attributed to the watchful care of the chief of the department of fine arts, Halsey C. Ives, and his assistants, and the vigilance of the guard and the fire departments, both of which were strictly and repeatedly enjoined to use the greatest diligence and every precaution that could be devised for protecting the precious contents of the Art building."

OPENING DAY OF THE EXPOSITION

The weather conditions on the first of May, 1893, were unfavorable for the occasion, offering, indeed, a strong contrast with the ideal weather experienced at the dedication exercises in the preceding October. The climate of Chicago is

at its best in the autumn season, while the late spring and early summer months are often cold and backward, as compared with the same season in other parts of the country. Nevertheless the attendance was fully up to the expectations of the managers of the fair. There had been a heavy rainfall during the night, and the sky remained overcast and threatening during the day, but still more than two hundred thousand people entered the park on the day of the opening.

The Illinois Central line put its World's Fair express trains into operation for the first time, and so well had the plans for transportation on all the lines been carried out that the throngs were easily and promptly carried to and from the exposition grounds.

The opening ceremonies were held in the open air, as the buildings which might have been available for the purpose, had they been unoccupied, were now filled with exhibits. The platforms and seats were arranged along the east front of the Administration building, facing the Court of Honor. At the summits of hundreds of flagstaffs along the Court of Honor, and upon the buildings flags and streamers were furled in such a manner that they could be released simultaneously at a signal.

President Grover Cleveland and a great number of others took their places on the platform. Surrounding the president were Vice-President Adlai E. Stevenson and the members of the cabinet; the Duke of Veragua, a lineal descendant of Christopher Columbus; the Diplomatic Corps; the governor of the state, the mayor of the city, members of congress, directors of the exposition, members of the World's Columbian Commission, members of the board of lady managers, members of foreign and state commissions, and the chiefs of the various departments of the exposition, with their families.

The "Columbian March," which was given at the dedication, was the first number on the program. Prayer by Rev. W. H. Milburn, chaplain of the United States senate, a poem by W. A. Croffut, and music by the orchestra followed in their order. The director-general, Colonel George R. Davis, then made an address, concluding with these words: "And now, Mr. President, in this central city of this great republic, on the continent discovered by Columbus, whose distinguished descendants are present as the honored guests of our nation, it only remains for you to direct that it shall be opened to the public; and when you touch this magic key the ponderous machinery will start in its revolution, and the activities of the exposition will begin."

THE PRESIDENT'S ADDRESS

President Cleveland, coming forward, was greeted with tumultuous applause by the vast multitude, which seemed to fill every inch of the space before and around him. In his brief address he spoke eloquently of the "stupendous results of American enterprise and activity," which surrounded those present, and of the warmth of the greeting which was extended "to those who have come from foreign lands to illustrate, with us, the growth and progress of human endeavor in the direction of a higher civilization." "We have built these splendid edifices," he continued, "but we have also built the magnificent fabric of a popular government, whose grand proportions are seen throughout the world. We have made and here gathered together objects of use and beauty, the products of American skill and

invention; but we have also made men who rule themselves. It is an exalted mission in which we and our guests from other lands are engaged, as we co-operate in the inauguration of an enterprise devoted to human enlightenment; and, in the undertaking we here enter upon, we exemplify in the noblest sense the brotherhood of nations."

The president now pressed the button which started the great two-thousand horse power engine, the largest of the seventy-seven engines supplying power to the exposition. At the same moment, says a writer from whose article we have gathered some of these details, a young man waved his hat, and at this signal there fluttered in the air the banners and flags from eight hundred flagstaffs. At the same moment also the veil fell from the golden statue of the Republic, at the east end of the lagoon; and two hundred white doves were set free and circled over the waters. The fountains began playing, and from the lake, beyond the Peristyle, the revenue cutter, "Andy Johnson," fired the presidential salute of twenty-one guns.

THE MULTITUDES DISPERSE TO VIEW THE ATTRACTIONS

This stirring scene was followed by the scattering of the throngs among the buildings of the exposition, to view the wealth of treasures gathered for their benefit. Although the attendance was large the paid attendance was only about 129,000, the remainder of the number present being made up of invited guests and employes. The following day President Higinbotham gave a breakfast to a large party of the guests and citizens in the Music hall. This was the first social event of the exposition, and, because of the distinction of the guests and the beauty of the surroundings, one of the most notable. The party then inspected the grounds and buildings, and were conveyed in steam launches out upon the open lake from which point a grand view was obtained.

DEPRESSING CIRCUMSTANCES

The days following the opening marked a great disappointment in the expected attendance, the first five days thereafter running from ten to eighteen thousand of paid admissions a day. Meanwhile the approaching storm in the financial world became apparent to the managers of the fair. They recognized the danger there was to the success of the enterprise in the threatening state of affairs. The Chemical National Bank of Chicago had obtained permission to open a branch in the Administration building, and had received deposits from exhibitors, concessionaires, and foreigners, amounting to some sixty thousand dollars, as at first stated. Eight days after the opening the bank failed. Its condition came to the knowledge of the managers of the fair the evening before the failure was publicly announced. The deposits in the bank "represented the available cash of several hundred persons," says the report, "many of them strangers, thousands of miles from their homes, and depending upon their deposits to maintain themselves in Chicago. The discredit to Chicago, and particularly to the exposition management, by reason of the failure of the bank which the directors had licensed, would have been complete, and would have seriously impaired the dignity of the enterprise and its patronage by our countrymen, had not steps been taken to meet the emergency.

"On the night of May 8th, before the failure could be announced in the morning papers, and before the amount of the deposits at the branch bank had been ascertained, the president of the exposition [Mr. Higinbotham] and the secretary [Mr. Edmonds] obtained, over the telephone, from thirty-five gentlemen, pledges of an amount sufficient to pay at once those depositors who were exhibitors or foreigners, thus relieving their embarrassment. These gentlemen undertook to furnish the funds needed for this purpose without knowing definitely the amount which they might be required to pay." Later, President Higinbotham learned from the officers of the failed bank that the amount of the claims of exhibitors and foreigners would probably be between $80,000 and $135,000, and within two hours the fund was raised. A few days afterward each of the gentlemen who had made pledges for this purpose sent their checks, and the claims of the depositors were paid. All the gentlemen were, in fact, afterwards reimbursed by the receiver, but considering the tension that then existed in financial affairs the sacrifices made by these men at that critical moment when every one was anxious for his own safety, were worthy of great praise.

"The panic grew apace, and the attendance at the exposition increased very slowly. Heavy obligations for construction work matured, but there were no funds with which to meet them. The heavy liquidation and the severe contraction of credit throughout the country made the demand for money everywhere very pressing, and it was not easy to withstand the just demands of creditors greatly in need of moneys due them. Little or nothing could be done, as the small receipts left only a narrow margin above actual expenses. In a short time unpaid vouchers amounting to over a million of dollars were piled up in the treasurer's office awaiting the accumulation of funds."

FINANCIAL DIFFICULTIES

At various times during the period of construction there had been estimates made, each time showing a large and alarming increase in the amounts. The estimate made at the beginning of the year in which the fair was opened showed the appalling total of twenty millions of dollars which would be required before the opening day, a great part of which had, of course, been already provided; but an alarming deficiency still remained.

As the month of May advanced the attendance slowly increased, the admissions averaging 37,510 per day. In June, however, the attendance grew rapidly, averaging 89,170 per day. The total receipts for May were $583,000; and during June they were $1,256,000. These increasing receipts made it possible to reduce the great amount of unpaid obligations that were pressing for settlement. "Thus as the weather settled into a clear, bright, pleasant, early summer, with soft and refreshing breezes from the great lake blowing over the park," says the report, "the exposition received a foretaste of the enthusiastic patronage which it enjoyed so fully in the fall. Gradually the attendance increased until it frequently exceeded one hundred thousand paid admissions per day, and on 'German Day,' June 15th, it reached 165,000." But the staggering load of indebtedness was not quickly relieved, as the language of the report shows. Care and anxiety pressed heavily upon the members of the council of administration sitting in continuous session in the Administration building, from early morning until late at night.

"The most threatening and oppressive embarrassment of the company was its heavy indebtedness, the true extent of which was thoroughly understood about this time, July 1st. Frequent reference has been made to the difficulty of preparing budgets of estimates and the rapidity with which they were outgrown by the needs of the exposition. The latest budget had been prepared on January 1, 1893. It showed a total estimated requirement for completing the exposition, including payments on account of construction, the expenses of the director-general's departments, and the general offices of the company, amounting to over twenty millions of dollars, a large part of which was not expected to fall due until after May 1st. When this budget was prepared it was thought possible, by using every resource at the command of the board of directors, that the work might be successfully carried through to May 1st; that this date would be reached with the treasury not entirely exhausted, but with a considerable amount of obligations on contracts which would not become due until some weeks later; and that the total amount of such obligations would not be great enough to seriously obstruct the payment of the exposition debenture bonds. The board of directors had limited the amount of the bonds of the exposition to five millions of dollars, and had, by implication at least, limited its power to create debt to this amount also."

On the Fourth of July the attendance reached the gratifying total of 283,273, and this, the highest number yet registered, it was predicted by many that it would be the greatest which the exposition might expect for any single day's attendance. This prediction was destined to be disproved by later experience. "Soon after July 4th," says the report, "the attendance again fell off, owing to the heat and the fact that many who had visited the exposition en route for places of summer resort had gone away, while others were delaying their visits until more favorable weather should prevail. The same falling off was noticeable in the attendance at the Centennial Exposition in 1876. Nevertheless, it served to discourage the hopes of officers and to add to the burden of their cares."

ANXIETIES OF THE OFFICERS

"The infinity of details which burdened the president and the council of administration at this time was overwhelming. There was no opportunity for strengthening or enlarging our organization, for meeting new business, or for disposing of arrears. The services of persons unfamiliar with the complex organization and the duties of hundreds of officers were useless. Directors who, full of sympathy, were anxious to aid the overworked officers found themselves unable to assist unless they had kept pace with the business for months before or went resolutely to work to acquire the necessary information.

"The president found in Mr. George V. Massey of the council of administration a firm friend, an industrious fellow-laborer, and a counselor wise, firm, and temperate, whose advice proved invaluable in many emergencies." The President, Mr. Higinbotham, together with the secretary of the council of administration took up their quarters in the administration building, seldom leaving the park by day or night. "The days were occupied with personal interviews with officers and employes, or with concessionaires appealing their grievances from the superintendent of collections or the committee on adjustment. The evening was given to correspondence or the clearing up of matters which had accumulated during the day."

It frequently happened that one o'clock in the morning found the president and secretary still at their desks.

DETAILS OF ADMINISTRATION

"An estimate of the floating indebtedness made on May 1st, showed balances due on construction accounts alone in the neighborhood of two millions of dollars. In addition to this . . . material of all sorts had been purchased, under the pressure of grave emergencies, and without proper authority, to an enormous amount, which in the confusion of affairs at the opening day, could not even be approximately summed up. Not infrequently bills were presented for payment, regarding which neither the president, the council of administration, nor the auditor had been able to get any information, although the obligation had been incurred by some subordinate officer weeks or months before. The opportunity of subordinate officers seriously to embarrass the company by contracting liabilities to large amounts was quite ample. Nor was it possible to check this state of things, for the president and the council of administration, in the main, had confidence in the officers under them, and felt that it would be unsafe to hamper them as to expenditures at a time when the paramount object was the completion of the exposition by the time fixed.

"My only regret is that we were unsuccessful in creating some system which would have enabled the management to have a better knowledge of the liabilities as they were incurred. Because of the lack of this knowledge, the president and the council of administration were frequently criticised and censured, although they felt that they had done as well as was possible under the trying circumstances. In the orderly conduct of an established business it is the duty of the president or the general manager to have full knowledge of the details of every line of expenditure or obligation incurred. In a heavy and costly work of construction it is never possible to estimate so closely as in an old established business. This every one knows who has been identified with the construction of a railroad or a great building.

"In a military campaign, in the time of war, questions of expense are utterly disregarded, the only object worthy of consideration being the achievement of victory over the enemy. I have mentioned a great private business, a work of construction, and a military campaign. The World's Columbian Exposition, from start to finish, resembled the latter more than it did the two former. Great and unusual powers had to be entrusted to subordinate hands for the accomplishment of one result, without accurate count of the cost."

When it is considered that the president of the exposition, Mr. Higinbotham, was himself in the front rank of able and successful business managers, a partner in the great firm of Marshall Field and Company, the weight of his words on these matters may be realized. Like a commander in a campaign he was placed in a position of responsibility requiring resourcefulness, the power of making instant and far-reaching decisions, and the exercise of a clear judgment in directing affairs. His long experience in active business, his knowledge of men, his high sense of honor and business integrity, his proved ability, were qualities that combined to make up a leader who came upon the scene of action at a most critical time. The successful conduct and results of the great exposition were largely due to the Herculean labors of Mr. Higinbotham. In his work he had at his back the universal

sentiment of loyalty to the fair which was shown by the people of Chicago. This spirit of loyalty, so generally manifested, was the great contributing cause, in the last resort, to the success of the exposition, a spirit shared by almost every man, woman and child of the population.

And yet there were times when even this support failed, for when the bonds of the exposition were issued, and Mr. Higinbotham himself visited the offices of men who could have purchased the securities thus offered, he was unsuccessful on many occasions. "I have been as good as shown out of the door, when I called upon men to urge their purchase," he exclaimed in despair to a friend.

Mr. Higinbotham in his exhaustive report as president of the exposition, has accorded high praise to his distinguished associates in the conduct of affairs, who were indeed well entitled to the high encomiums he passed upon them. But his own services were naturally passed over in his report with brief and modest mention. It is therefore necessary to go to other sources for a proper appreciation of his own great part in the work, and it is thus clearly seen that the chief figure in the galaxy of honorable men who brought the great exposition through its difficulties to its glorious accomplishments was that of Harlow N. Higinbotham.

We cannot dismiss this subject without a mention of the great personal sacrifices, both to his business affairs and his own comfort, that was involved in Mr. Higinbotham's devoted attention to the affairs of the exposition. Something may here be said as to the attitude of Mr. Field, the head of the house of Marshall Field and Company, towards the fair, and the necessary and prolonged absence of Mr. Higinbotham in its service. In general it may be stated that Mr. Field disapproved of Mr. Higinbotham's temporary abandonment of his business duties, and frankly expressed his opinion to that effect. But after the fair was over he generously accorded to Mr. Higinbotham praise and approval of his course, and said to him: "If it hadn't been for you we wouldn't have had a fair." Besides saying this he complimented him on the general management of its affairs. Mr. Field, unquestionably one of the greatest merchants of his time, was a man of great reserve, and it often happened that for long periods together his most intimate business associates and employes knew little or nothing of his views regarding their services. "In the forty years of my association with Mr. Field," said Mr. Higinbotham, "he never interfered further than to consider results, and upon them his judgment was solely based."

Mr. Field abundantly made good any deficiency of interest he may have felt towards the fair in the beginning, when, near its close, he placed a million dollars in the hands of the board of trustees to purchase objects then available for a collection to be known as the Columbian Museum, which in his honor was afterwards called the Field Columbian Museum. Elsewhere is given a more detailed account of this great project, and of the increase of Mr. Field's contributions.

THOMAS B. BRYAN

Praise should be accorded unstintingly to Mr. Thomas B. Bryan for the great service he performed in the cause of the fair. When it was seen that the Easterners must be won over to an approval of the plan for a fair to be located at Chicago, Mr. Bryan visited the East, and was instrumental in gaining a hearing in many influential quarters. His speech before the congressional committee far sur-

passed in convincing power the pleas advanced by the men from New York; and his able defense of the fair in the public prints when it was attacked, his declining the salary attached to the office of vice-president of the board of directors, his entertainment of distinguished guests from abroad, all go to prove his enthusiastic devotion to the interests of the fair. Mr. Bryan was also one of those who visited Europe on behalf of the exposition, where he made a very good impression and won many friends for the enterprise. The time and money expended by him in this cause must have been very great, and it was always done in a spirit of self effacement truly admirable.

An account of Mr. Bryan's distinguished public services at the time of the World's Fair is but a repetition of his activities in all periods of Chicago's history with which he was contemporary, during his long residence here. From the days of the great sanitary fairs held in Chicago in the period of the Civil War down to the last days of his life, there has never been a crisis of any kind requiring an exercise of public spirit on the part of its citizens, but that Mr. Bryan has always been found ready to lend effective aid and service. As a writer said in a newspaper article, nothing less than a statue should be erected in some suitable place as a testimonial to this public spirited citizen and friend of the fair.

CHAPTER XLIII

PROMINENT FEATURES OF THE WORLD'S FAIR

GENERAL PRINCIPLES OF DESIGN—PROBLEMS OF THE CHIEF OF CONSTRUCTION—THE ADMINISTRATION BUILDING—THE VESTIBULE OF THE EXPOSITION—DIMENSIONS OF THE ADMINISTRATION BUILDING—MACHINERY HALL—POWER SUPPLIED TO ALL BUILDINGS—NOBLE PROPORTIONS OF THE AGRICULTURAL BUILDING—THE PERISTYLE AND ITS ARTISTIC PURPOSES—THE MANUFACTURES BUILDING—THE MAMMOTH STRUCTURE OF THE EXPOSITION—ITS COLOSSAL DIMENSIONS—THE ELECTRICITY BUILDING—THE MINES AND MINING BUILDING—THE TRANSPORTATION BUILDING—EXHIBITS IN THE TRANSPORTATION BUILDING—LAND AND WATER TRANSPORTATION EXHIBITS—THE HORTICULTURAL BUILDING—LOCAL TRANSPORTATION—INTRAMURAL COMMUNICATION—THE ART PALACE—TRIUMPH OF EXPOSITION ARCHITECTURE—FISHERIES BUILDING AND EXHIBITS—GERMANY'S WONDERFUL BUILDING AND EXHIBITS—SPAIN'S BEAUTIFUL BUILDING—JAPAN'S MARVELOUS CONTRIBUTIONS—OTHER ORIENTAL PARTICIPANTS.

GENERAL PRINCIPLES OF DESIGN

THE plan adopted by the chiefs of construction at the beginning was that certain scales and dimensions in all the structures around the Court of Honor should be uniform; for example, that the cornice lines should be sixty feet in height, that the bays in the continuous arcades around the court should be twenty-five feet in width, and that no dome or tower should rival the height of the Administration building, but should be kept in subordination to its commanding eminence. Everything else was to be left to the individual discretion of the designers. "The leading motives of composition," said one of the architects, "were to obtain such a disposition of the greater buildings as should make the best and most effective use of the natural conditions." But all dispositions were to be "made subordinate to the situation furnished by the wide expanse and horizon of the lake." There were many earnest friends of the exposition who feared that in planning the buildings and grounds too much care would be given to the mere bigness of scale, losing sight of the artistic effects, the crown and glory of the whole. Others raised a cry "that the Philistines would rule."

But in the councils of the able architects that the chief of construction had gathered about him "it was decided to hold to a general plan. They adopted established architectural traditions and styles, and worked on accepted formulas. None of the designers was to make special features outside of the accepted styles, and there were to be no eccentricities of personal taste." This policy was strictly

adhered to so far as the great buildings surrounding the Court of Honor were concerned. Some deviations were noticed among the widely scattered buildings in other parts of the grounds.

"Another cry arose," says the History, "when it became known that classical forms of architecture had been adopted, but it came from a much smaller number of people than that which predicted the slighting of art at Chicago." It was feared by these critics that "originality would be stifled," but no such consequences appeared; and since that time we have witnessed a renaissance of the ancient forms which has resulted in stimulating originality rather than in its repression.

In describing the World's Fair adjectives must be employed in profusion. We make no apologies for making use of them even if they are "overworked." The English language contains these words, and there is no escaping from their proper use. Seldom has there been an occasion in the annals of a city or nation that required so many and such strong expressions in the superlative degrees, as the sights and scenes of the World's Fair of 1893. We shall not flinch, therefore, and if the repetitions become tiresome, the reader must make the proper allowances.

THE ADMINISTRATION BUILDING

It is not intended to write an exhaustive description of the World's Fair buildings in this history, as such a description, if at all adequate, would occupy more space than can be devoted to it. We must therefore confine this account to a description of the more important structures.

The Administration building was designed by Richard M. Hunt, the dean of American architects. "Mr. Hunt," says William A. Coffin, "built an edifice of commanding majesty for the administration offices, which from its position in the group of the court of honor formed a center for the converging lines of the other buildings." The administration building has been called the "gem and crown" of all the buildings, the "vestibule" of the exposition. Standing within the great rotunda, the visitor felt that here indeed was the "stately pleasure dome" of "Kubla Khan," a dome the principal purpose of which was to give a noble impression, while its form was an expression of beauty instead of mere utility.

Nothing like this was ever before attempted in our country. For in this building we saw a different purpose than that of defense, as in the castles of the Middle Ages, or of worship, as in the cathedrals of Europe, or to perpetuate the memory of departed monarchs and great men, as in the Pyramids of Egypt or the tombs of the Appian Way—a purpose of expressing simply and strongly the beauty of form.

This building was placed at the west end of the court of honor, and in front of it towards the east was the MacMonnies' Fountain, an elaborate work of art. Beyond this stretched the Great Basin, flanked on either side by the Manufactures building and the Agricultural building, ending with the colossal statue of the Republic and the impressive colonnade of the Peristyle, making it, as Lorado Taft said, "the finest architectural display in the world." The dome of the building rose two hundred and seventy-five feet in the air, but, within, the interior dome was considerably lower as usual in such constructions. The dome was one hundred and twenty feet in diameter. The base of the building was two hundred and sixty

feet square. The four great entrances were fifty feet wide and of the same height, deeply recessed. At the bottom of the recesses were entrance doors, and above them great screens of glass, which with the "eye" at the summit of the dome, fifty feet in diameter, gave light to the central rotunda. When illuminated with its three thousand electric lights, and with the great flaming torches, fed by natural gas, on the parapets along the upper portions, it became a magnificent and impressive spectacle.

Mrs. M. G. Van Rensselaer, the well known architectural critic, in a descriptive article printed in the *New York World*, written before the building was completed, says: "As it is one of the largest domes in the world, so it is one of the most stately in expression, one of the most graceful in outline. Outside, it is fifty-seven feet higher than the dome of the Capitol at Washington, forty-two feet higher than the dome of the Invalides in Paris, and about the same height as the dome of St. Paul's in London. That is, although St. Paul's is always said to measure three hundred and sixty-five feet, and this dome only measures two hundred and seventy-five feet from the pavement, the extra height at St. Paul's is absorbed by the lantern above the dome and by the tall gilded cross which it carries. The dome of St. Peter's in Rome stands some ninety feet higher than ours. But ours is only twenty feet less in diameter than St. Peter's, and in this dimension exceeds any other dome in the world.

"Of course, when I said that, inside, the great hall is open to the eye to the top of the dome, I did not mean that the interior height is the same as the exterior. For the past two hundred years no one has built a great dome with a single shell, and thus carried the ceiling as high as it could go under the outer roof. At St. Paul's, as at the Invalides in Paris, and in all later large domed interiors, there is an outer dome and an inner one, differing greatly in height—an artistic expedient adopted in order that a dome which is high enough outside to be effective, both from near and from distant points of view, shall not dictate an internal height of disagreeably tall proportions and cavern-like effect. So, too, it is at Chicago. Mr. Hunt's dome, which rises to a height of two hundred and seventy-five feet outside, measures only one hundred and ninety feet inside. But this means that it is quite as high inside as it could be to look well, even with so great a diameter, and that it is fifteen feet higher than the interior dome of the Invalides, ten feet higher than that of the Capitol at Washington and only twenty feet lower than that of St. Paul's, which, as every traveler must remember, is distinctly too tall in an interior view. Taking height and diameter together our dome is the largest in the world excepting St. Peter's; and for combined grace and dignity of exterior outline only the domes of St. Paul's, of the Invalides, and of the Cathedral of Florence, which it resembles more than any other, can be called its equals.

"When completed, with its external flutings and ornaments in relief, and the open work coronal which will surround its central eye, and with its internal coffers, sculptures and paintings, it will be one of the most impressive and beautiful architectural sights in the world."

By way of comparison, the dimensions of the dome of the Federal building in Chicago, completed in 1905, may here be stated. This building carries a lofty dome, the extreme height of which is two hundred and ninety-seven feet, with an inner dome much lower of course. This therefore is a loftier dome than that of

the Administration building by twenty-two feet, but the beholder can thus mentally gauge the height of the latter, which has since passed away from mortal gaze "in clouds of glory."

A verse of Eugene Field's on this noble structure is quoted here:

"So let them enter underneath this dome,
Pour as the years pour, go as armies go;
Its head is reared above the wash and foam
Of the spent centuries; we only know
One loftier work, the master's, wrought in Rome,
And Hunt has challenged Michael Angelo."

MACHINERY HALL

Flanking the Administration building on the south, stood the building for the exhibition of machinery. The size of this building was eight hundred and fifty by five hundred feet, and its interior consisted of three enormous arched spaces, as if three great train sheds had been joined at their sides, open between. The building was designed by Peabody & Stearns, architects, of Boston, and by some it was considered as being second only to the Administration Building in its magnificence. Its exterior was a classic grove of columns, the colonnades seeming to be marching at times in serried rows, or supporting lofty porticos, and again appearing far above in circular arrangements most engaging to the eye.

Machinery Hall had a dismal experience of disasters and delays during the period of preparation. In the spring before the opening, much damage was done by snow and ice sliding from the higher parts of the roof into the valleys between the trusses. Quantities of snow and ice broke through into the spaces below, and even after repairs were made the roofs remained in a dangerous and leaky condition, because of the unequal expansion and contraction of the great arched trusses, and the immense surfaces of glass in the roofs. The progress of installation was thus very seriously delayed.

By almost superhuman exertions the great traveling crane for handling the heavy machinery and exhibits was placed in position, and early in the spring the building began to be occupied. There were nearly one thousand car loads of exhibits brought to the building. The boilers for generating power were placed in a continuous line in an annex to Machinery Hall. There were fifty-two boilers equivalent to a power capacity of somewhat more than twenty thousand horse power. A gallery was constructed which gave visitors an opportunity of overlooking the whole range of boilers, and which proved to be an exhibit of the greatest interest. The engines in the power and electric plant constituted perhaps the most extensive and interesting exhibit of the kind ever brought together in one place. There were seventy-seven engines of all sizes and designed for various purposes. At a later period in the Exposition season a platform was built on the great traveling crane, fitted with seats and used to carry passengers from one end of the great hall to the other. This proved to be a great attraction. Power required for the various buildings on the grounds was supplied by an immense Allis engine of two-thousand horse power.

By courtesy of D. Appleton & Co.

THE PERISTYLE AND STATUE OF COLUMBIA
MUSIC HALL AT THE LEFT

By courtesy of the N. D. Thompson Publishing Co.

WESTERN FACADE OF THE AGRICULTURAL
BUILDING ON THE SOUTH LAGOON

By courtesy of the N. D. Thompson Publishing Co.

THE GREAT FOUNTAINS IN ACTION

AGRICULTURAL BUILDING

This noble structure was designed by McKim, Mead and White, a firm of architects in New York. It was one of the buildings facing north on the Great Basin of the Court of Honor, and therefore occupied a distinguished position in that splendid group. No building at the Fair was so profusely ornamented with sculpture as this one. It offered to the eye more distinct groups of statuary, standing out in clear relief against the sky, than any building at the Fair. "I have rarely seen anything," wrote Mrs. Van Rensselaer, in the New York *World*, "that I thought finer than the main porch of this building, very richly treated, yet quiet and dignified in effect, with the low, finely modeled mass of the dome close behind it."

The projecting porch was crowned by a sculptured pediment, behind which rose the dome, "not unlike the dome of the Pantheon in outline." On its apex was placed St. Gauden's beautiful statue of "Diana," which had previously ornamented the tower of Madison Square Garden in New York, mounted so that it served as a weather vane.

The rotunda of the Agricultural Building was a sort of temple to the Goddess of Agriculture, Ceres. The interior of this rotunda was covered by the dome just referred to. It was one hundred and twenty-nine feet high and seventy-eight feet in diameter, in the center of which was the statue of Ceres. Its facade was a noble one, and its extensive frontage, eight hundred feet in extent, was divided, like that of the Manufactures Building on the opposite side of the Great Basin, by a central pavilion, or main porch. The walls on either side ended at the corners with pavilions, all three supporting domes. The style was Corinthian, the most sumptuous of all the classic styles, and the building as a whole was regarded by an eminent critic as "the most permanently interesting and satisfying of any of the great buildings at the Fair, excepting only Mr. Atwood's wonderful Art Building, far away at the northern extremity of the grounds."

THE PERISTYLE

In planning the buildings for the Court of Honor the east end of the Grand Basin was left to the last. It was agreed that Mr. St. Gaudens should be asked for a design, for, unless the Court of Honor was enclosed in some way on the lake side, the whole architectural scheme would be weakened. St. Gaudens suggested thirteen great Corinthian columns to be placed along the eastern end surmounted by statues, which were to typify the thirteen original states of the Union. The space over which these columns were to be ranged was five hundred and seventy feet in length, thus leaving the columns forty-four feet apart. This suggestion was placed in the hands of Charles B. Atwood to develop, but Mr. Atwood felt that more noble treatment was required at this point. Accordingly he designed an arch for the center on which would be placed a quadriga of colossal proportions, on either side of which should extend the columns surmounted by an appropriate entablature, the whole arranged in a continuous open arcade from one side to the other. Through the openings between the columns thus placed the blue waters of the lake could be seen as part of the general composition.

This design was accepted and this structure was thenceforth known as the

Peristyle. Atwood was appointed Designer-in-Chief in April, 1891; and so continued until after the Fair was opened. He was also the designer of the beautiful Art Building, noticed elsewhere. The Peristyle was ordered to be built according to the design submitted by Atwood, and won high praise from the critics and visitors. At one end, the colonnade joined the Music Hall and at the other the Casino. The arch at the center spanned a water way between the Grand Basin and Lake Michigan, and the great quadriga above it represented a chariot drawn by four horses abreast, together with other figures. This beautiful structure harmonized perfectly with the other great buildings surrounding the Court of Honor.

Beyond the Peristyle the Casino Pier extended twenty-four hundred feet into the lake, built for a landing place where the great excursion steamers could load and discharge the vast throngs of humanity that chose this mode of travel between the Chicago river and the Exposition grounds. On the pier a broad movable sidewalk, provided with settees, was installed. It was in the form of a loop, and visitors thus conveyed were enabled to enjoy the lake breezes in the most comfortable manner.

MANUFACTURES BUILDING

There were many wonders at the World's Fair, and perhaps the great building known as the Manufactures and Liberal Arts Building was the most wonderful structure of the "White City." In size it was far and away the largest on the grounds.

The following description of this building is quoted from the "History of the World's Columbian Exposition," published under the authority of the Board of Directors. "The location of the Manufactures and Liberal Arts Building was prominent, as its importance and great size would merit. It was on the lake shore, its south front forming the north side of the Court of Honor. The west side faced the Electricity Building and the Wooded Island, and the north front looked toward the United States Government Building.

"This was the mammoth structure of the Exposition. It covered about thirty acres and a half, and was therefore about twice the size of Machinery Hall. Compared with notable buildings of the world, it was about six times as large as the Coliseum at Rome (five acres and a half), which seated 80,000 spectators, had five times the area of St. Peter's Cathedral (six acres), and nearly three times the area of the largest Pyramid of Egypt (eleven acres). The extreme length of the building was 1,687 feet and the extreme breadth 787 feet, so that the distance around it was about ninety-five one hundredths of a mile. The height was 237 feet from the floor level to the peak of the highest roof. This would be equal to a building nineteen stories high with a height of twelve feet for each story. . . . Its galleries had an area of twelve acres and a half, so that the total floor area was about forty-three acres. It was rectangular in outline, with projecting pavilions at the centers of the four facades and at the four corners.

"Architecturally considered, the building consisted of a series of naves 175 feet wide and 133 feet high, surrounding a large hall or covered court 382 feet wide and 222 feet high, supported by steel arches without intervening columns. This hall, or court, constituted about one-third of the ground area of the building (eleven acres and a quarter). The facades were treated in the Corinthian style

of architecture, ornamented at the centers by triumphal arches suggestive of the Arch of Constantine at Rome, while the corners were accentuated by others that recalled in some measure the Arch of Titus. The central pavilions, which marked the main entrances of the building, rose to a height of 124 feet above the ground. Their walls were decorated with sculpture and relief ornament, descriptive tablets, and symbolic figures, and the domed ceilings were painted in fresco by noted American artists. The corner pavilions, 94 feet high, were similarly treated and were in harmony with the center.

"Between these main points extended the long vista of arches, which made up the facades, with broad *loggias* which served for cafés, promenades, etc., and as resting places for tired visitors. The entire surface and decoration of the exterior were of staff, which in its appearance has something of the massive character and repose of marble, and is capable of the most elaborate treatment in reproducing the various ornamental forms used in classic work.

"The main aisle, fifty feet wide, running north and south through the center of the building, was known as Columbia Avenue, and a similar aisle crossing the building from east to west divided the exhibit space into four main sections. Along these broad avenues were arranged the most notable exhibits according to their nationalities, and through them moved the great currents of sight-seers.

"The galleries, about twenty feet above the ground floor, were constructed throughout the entire length of the naves, along the outside walls, and against the great steel trusses of the inner court. Frequent cross galleries connected these along the walls, so that about half the area of the naves was covered by galleries. In the original plans access to them was provided by thirty staircases, twelve feet wide, at different points in the building. During the Exposition period two additional stairways, twenty-five feet wide, leading directly from the main avenues of the great court, were supplied by the exhibitors in the American section, which materially increased the attendance in the galleries. The estimated cost of the building was $1,812,691. The light was provided by windows in the outside walls and by skylights in the roof. The total amount of skylight surface was thirteen acres and a half, or about three-sevenths of the entire ground area of the building. The architect was George B. Post, of New York.

"The difficulty in the designs of the Manufactures and Liberal Arts Building lay in its enormous length of facades. The architect became convinced, upon giving the matter careful study, that, in order to produce an effect of dignity and grandeur, the *motif* of the design should be as large and simple as possible; that any attempt to break the horizontal lines, except at their ends and centers, would belittle the effect; and that the introduction of sculpture or any serious amount of mural enrichment, except at the centers and ends of the facades, would have the same result.

"On his demonstrating, to his own satisfaction, the accuracy of these conclusions, the selection of a *motif* for the design followed naturally. It had been decided that the work should be pure Italian Renaissance, and in carrying out the design no attempt was made to improve the proportions of details of columns or entablatures established by the great examples of the Renaissance; the form of the triumphal arch for the central and corner porches, and of the repeating arches found in the Roman aqueducts for the screen walls seemed to meet all the re-

quirements. The Temple of Jupiter Stator, in Rome, was selected as a model, and was copied as literally as was possible."

The great building was very impressive in all respects. "The visitor," as an observer, viewing it while it was under construction, said, "standing at the foot of one of the great trusses, and tracing its course upwards with his eye, seems to see it soar like a rocket into the sky, gracefully curving until it meets and joins its mate from the opposite side, 'grappling in the central blue.'"

THE ELECTRICITY BUILDING

The design of the Electricity Building was made so that its architectural details might be shown to advantage in illuminated outlines at night, and the towers, flagstaffs and cornice lines should gleam with electric lights. The building was designed by Messrs. Van Brunt & Howe, of Kansas City, Missouri, and was seven hundred and sixty-seven feet long and three hundred and fifty feet in width. It stood east of the Mines and Mining Building. Its main entrance, facing towards the Administration Building, was a vast recess in the center of which was placed a statue of Franklin, the work of the sculptor, Carl Rohl-Smith. Within, the most prominent of the objects met by the visitor was a magnificent tower constructed in honor of Thomas A. Edison, the inventor of the incandescent light. It was a column eighty-six feet high, on the outside of which were placed lights in a regular design and in different colors. These colors were flashed out separately or in combinations in a manner which in these days are seen on every street, but were then a new device attracting the wondering gaze of multitudes of visitors. On the top of the column was a crystal figure like an incandescent lamp six feet high, and containing thirty thousand pieces of crystal, which when illuminated, flashed in a myriad brilliant scintillations of light. A bust of Columbus, sixteen feet high, was wrought in various colored lights. At the north end of the great hall was arranged a half circle of arc lamps in colored globes hung from the trusses, which produced an extremely beautiful effect.

There were four search lights which, though belonging to the displays of the electricity department, were mounted on the roof of the Manufactures and Liberal Arts Building, one of which was the most powerful that had ever been constructed at that time. It was placed at a height of two hundred and thirty feet, and its beam was seen at Milwaukee, eighty-five miles distant, on the night of the 15th of July, during the season of the Fair. It was said that a person could read a newspaper by its light at a distance of ten miles.

MINES AND MINING BUILDING

Facing the elaborate grounds surrounding and contiguous to the Administration Building with its lofty golden dome, the Mines and Mining Building was placed in a dignified situation, and contained exhibits of extraordinary interest appropriately installed under its roof. The architect of this building was Solon S. Beman, of Chicago, and it was erected at a cost of $265,000. Its area was seven hundred by three hundred and fifty feet, and it was provided with four entrances of imposing dimensions, the north and south entrances being fifty-six feet in height,

and thirty-two feet in width. The interior was spanned by steel cantilever roof trusses, leaving a clear space in the center unencumbered with supporting columns, six hundred and thirty feet long and one hundred and fifteen feet wide.

The mineral resources of all lands were exhibited in this building, ranging from the diamond mines of Africa to the coal fields of Illinois. The raw material exhibited here may be considered the groundwork of all the arts, sciences and mechanical industries. All the precious minerals, all the economic minerals, all the precious stones, all the coals, all the building stones and marbles, all the clay and sands, all the salts and pigments, as well as the machinery, implements and appliances employed in their conversion to the uses of man were here represented. Mining machinery, apparatus, and every detail of their use, were shown. Mineral collections of crystals, quartzes, ores, and coal, were gathered here in endless variety of arrangements, under the roof of this building. Foreign nations participated largely in this department of the Exposition.

TRANSPORTATION BUILDING

The architects of the Transportation Building were Messrs. Adler & Sullivan, of Chicago, and their strikingly original building added greatly to the interest of the structures of the Exposition. It was situated facing east and close to the lagoon which surrounded the Wooded Island. Along its western side was an annex running almost the entire length of the building. Its length was nine hundred and sixty feet by two hundred and sixty feet in width. The general design was simple, but the details were rich and elegant. A cupola, suggesting an Oriental model, rising to a height of one hundred and sixty-five feet, surmounted the roof. The entrance, consisting of a series of concentric arches, was richly decorated in gold and colors, and for this reason was called the "Golden Door." This splendid entrance became one of the architectural attractions of the Exposition.

This building with its annex covered a vast space, and was filled to its utmost capacity with exhibits of surpassing interest. One of the inscriptions was a quotation from Bacon, and was placed upon the left spandrel of the great doorway. It read thus: "There be three things that make a nation great and prosperous, a fertile soil, busy workshops, easy conveyance for men and goods from place to place." On the right spandrel was an inscription taken from Macaulay, as follows: "Of all inventions, the alphabet and printing press alone excepted, those inventions which abridge distance have done most for civilization."

The problem of transportation has, perhaps, been solved more completely by Americans than by any other nation on the globe. "American development," says the History, "owes its unparalleled rapidity to the improved methods of transportation which characterized the century. Americans believe that in this field of progress their country equals any in the world, and in the comfort and rapidity of long-distance travel they claim superiority. James Dredge, of the London 'Engineering,' says further that 'Americans may fairly claim to have solved the problem of the rapid and cheap transportation of freight over long distances more successfully than any other nation.' The city of Chicago is itself the result of a remarkable combination of water and land routes of transportation."

EXHIBITS IN THE TRANSPORTATION BUILDING

Foreign manufacturers of railway engines and rolling stock had no motive for sending their goods for display at the Exposition, as there is no market for them on this side of the water. The foreign railway exhibits that were secured were sent mainly by European railway companies rather than by manufacturing establishments, and were due to their desire to see their countries creditably represented at the Exposition. The very full and attractive displays of foreign railway engines and cars were a great attraction in the exhibits shown at the Transportation Building, and were studied with the greatest interest in comparison with the exhibits made by American railway companies. The London & North-Western Railway constructed a pit lined with brick, over which stood the monster locomotive, the Queen Empress, thus permitting visitors to go under and examine the engine in all its parts to better advantage than would have been possible otherwise. In contrast with this was the new locomotive "Number 909," with a full train of cars attached, from the New York Central Railway. Included with the British exhibit was the locomotive "Lord of the Isles," first seen at the World's Fair of 1851, in London. This was a world's wonder at that time, having a single pair of driving wheels eight feet in diameter, with a gauge of seven feet, and a record of forty years' service.

Water transportation was fully represented in this department, and in addition to the smaller craft which it was possible to place beneath the roof of the building there were models of the great sea-going vessels both of war and the merchant service. Shipbuilding on the seaboard, as well as on the Great Lakes, was illustrated by a series of elaborate models. Some portions of the marine exhibits were found in the Fisheries and the Government Buildings. One could see in the Transportation Building an immense display of wheeled vehicles, including bicycles, then approaching the height of their popularity, not only from makers in our own country but from all lands and all times. All known methods of travel were represented by everything that would move on wheels or slide on runners. Field guns were exhibited in this department, showing the mounting of the guns and their operation.

THE HORTICULTURE BUILDING

The design of the Horticulture Building was made by W. L. B. Jenney, a well known Chicago architect. It covered five and a quarter acres, and presented the longest front of any of the buildings of the Exposition, with the exception of the great Manufactures Building. Its cost was $300,000. It was nearly one thousand feet in length, with an extreme width of two hundred and fifty feet, its roof surmounted by a glass dome one hundred and fourteen feet in height by one hundred and eighty feet in diameter. After the Exposition had closed, this dome was removed to Springfield, Illinois, and rebuilt upon the grounds of the State Fair, where it can be seen at the present time.

The building was well adapted for its purposes. The plants were installed in the autumn previous to the opening, so as to be in a flourishing condition of growth at the proper time. The long spaces in the wide extending wings were filled with the growths of every climate, the tallest of which were placed under the central dome. "This dome," says the History, "although kept as low as good proportions

would admit, was nevertheless, by its location on the borders of the lagoon, and its contrast with low curtains on either side, a conspicuous feature, shining in the sunlight like a crystal sphere." The decoration of the building was placed in charge of Lorado Taft, of Chicago, the figures and groups adding greatly to the charm of the structure. On either side of the grand entrance were placed groups by Mr. Taft, one the Sleep of the Flowers and the other the Awaking. Within were arranged trees and plants in bewildering variety, ranging from the giant cacti of Arizona, to the dwarf cedars of Japan.

Fruits were extensively displayed in the Horticulture Building, every known variety of tropical fruit that could be obtained, as well as the productions of the temperate zones in all lands. Thirty-seven foreign nations were represented in these displays, and nearly every state in the Union participated. A large lawn space, including tracts on the Wooded Island opposite to the building, was filled with a rich display of trees and plants, arranged in the best style of the landscape gardener's art. Geometrical beds were laid out on the lawns near the building, showing flowers in masses of colors. On the island there was a growth of wild trees and shrubbery, in harmony with the designs of the landscape architects to produce an effect of cool forest depths intersected by shady paths.

LOCAL TRANSPORTATION

The great difficulty in transporting the crowds which were expected to attend the Fair seemed to the projectors the most serious problem they had to contend with if the Fair were to be located at Jackson Park. This location was seven miles away from the center of the business district, and only such facilities as those possessed by the Illinois Central Railroad were then available. When, however, the decision to locate the Fair at Jackson Park had been made, measures were speedily taken to provide adequate transportation facilities. The Illinois Central people at once began to prepare for the increased travel expected, and spent a million and a half of dollars in elevating that part of the line passing the park entrances, building viaducts, and laying additional tracks. They also added largely to their equipment of passenger cars and engines, thus increasing the estimated carrying capacity of the road to twenty-five thousand persons a day.

The South Side Elevated Railroad hastened the extension of its line on Sixty-third street, the passenger capacity of which when completed would about equal that of the Illinois Central. Added to these was the cable line on Wabash avenue and Fifty-fifth street, with its Fair terminus at the Fifty-seventh street entrance. There was also the lake route available with a proposed fleet of excursion steamers. This addition to the transportation facilities was made and proved very successful. The great "whaleback" steamer "Christopher Columbus," afterwards engaged in this service, was able to carry five thousand people at a time, and could make several trips every day. Thus the problems confronting the directors were gradually solved, and when the Fair was opened these provisions for transportation were found fully adequate for the purpose. The supreme test was on Chicago Day, when there were upwards of 716,000 visitors registered, though many of these found other means of conveyance than those which have been mentioned. And yet on that day, and on all the great days of the Fair, the various means of trans-

portation, while often taxed to their utmost capacity, met every demand made upon them.

INTRAMURAL COMMUNICATION

Among the various means of transportation within the Exposition grounds was the Intramural Railroad, carried on an elevated structure three and a tenth miles long. It extended along three sides of the park with loops at the terminals. Its equipment consisted of fifteen trains of four cars each, the motive power being electricity, operated on the "third rail" system. The trains ran three and a half minutes apart, stopping at eleven stations, from a loop at one end to a similar one at the other, the round trip occupying forty-two minutes. The fare was ten cents. The total number of passengers carried was 5,804,000, an average of slightly over 34,000 per day for 170 days. Only one person was injured during the entire period of its operation. This means of going from one part of the grounds to another saved the visitors much time, and greatly lessened the fatigue of moving about over so large a space.

ART BUILDING

"There has been nothing like this since Athens," exclaimed St. Gaudens when this magnificent building burst upon his view, the design of Charles B. Atwood, of Boston. "If I were to vote for one, and only one, building to remain as a monument of the Fair," said an observer, "I should ask for this." Its style was pure Ionic, and, but for its dome, it would have seemed in place even among the ancient temples of classic Greece. It was one of the most beautiful of all the Exposition structures. Its Ionic architecture was of the most refined type, the details being modeled after the Erechtheum, the ruins of which stand on the Acropolis of Athens. In the Art Building we had a splendid example of a return to an antique and classic design, after dismal wanderings in the desert of weak imitations. Fortunately we have this building still standing in its place, worthily sheltering the great Field Museum at Jackson Park.

This building was comparable in size with the great structures on the Court of Honor, though standing a half mile from them; it covered a vast space,—eleven hundred and fifty feet from one of the extremities of its wings to the other, with a depth of five hundred feet. It was built much more substantially than most of the buildings of the Fair, as it was to contain works of art of almost priceless value. The main walls are of brick, while the roofs, floors and galleries are of iron. Its exterior was covered, like nearly all of the Fair buildings, with "staff," which is not a durable material, and since the days of the Fair the outside walls have required extensive repairs. In front of the building was placed a replica of the choragic monument to Lysicrates, the original of which is still standing in Athens.

"Architects, painters, and sculptures have singled out the Art Building as one which is the crown and jewel of the whole," said a magazine writer, describing the scenes at the Fair. A visitor, if shut up in a landscape with the frontage of the Art Building before him only, would become possessed with its charm and loveliness. To see this miracle of harmonious form at sunset, with all its lovely length reflected in the lagoon, was a rare and beautiful sight, bringing to mind the won-

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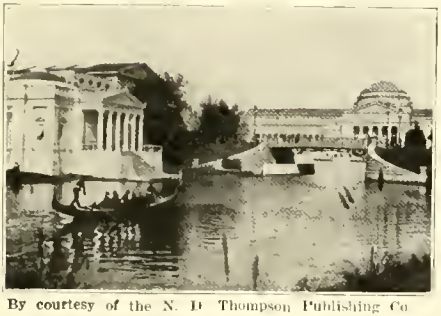
THE GOLDEN DOORWAY OF THE TRANSPORTATION BUILDING



By courtesy of the N. D. Thompson Publishing Co.

THE MERCHANT TAILORS' BUILDING

THE GERMAN BUILDING

By courtesy of the N. D. Thompson Publishing Co.

THE ADMINISTRATION BUILDING

derful landscapes of Turner. Said another writer:—"There is one splendid building which is like a star, and dwells apart from the giants around the Grand Basin, and that is the Palace of Art, designed by Charles B. Atwood. White, noble and serene, it stretches its long colonnades just north of the lagoon, to which terraces and flights of steps lead down. By far the most purely classic of the Exposition buildings, it yet departs from the strict Greek style by the addition of a broad, low, finely modeled dome."

A verse from a poem by H. C. Bunner gives poetical expression to the sentiments of many beholders.

"Say not, 'Greece is no more!'
Through the clear morn
On light wings borne
Her white-winged soul sinks on
The New World's breast.
O Happy West!
Greece flowers anew, and all
Her temples soar."

THE FISHERIES BUILDING

In a building specially constructed for the purpose covering three acres, the exhibits of fish and fisheries were held, and proved to be among the most entertaining of the attractions. An aquarium of sea fish was perhaps the most remarkable, in which were shown numerous forms of marine creatures,—shell fish, and every form of swimming fishes that it was possible to procure. The aquariums were supplied with sea water brought in tank cars, the water being procured from the Gulf Stream far out in the Atlantic Ocean. Experiments had been made with evaporated sea water in order to save transportation of so great a quantity as was required, but for some mysterious reason the restored sea water would not answer and the fish died. It was found practicable, however, to filter the sea water in the aquariums, and thus the same water was used with frequent changes.

The Government aquariums were in a circular building nearly one hundred feet in diameter. A row of aquariums lined the outer walls, and there was an inner row as well. The aquariums were well lighted while the visitors passed along in darkened passages, thus the effect was as if one were walking on the bottom of the sea or lake with the water held back by sheets of heavy plate glass, through which all the forms of aquatic life could be examined at a close range of vision. One immense aquarium, seventy-two feet long, contained specimens of Mississippi River fish, giant catfish, sturgeon and other varieties of river fish. Other aquariums contained fish from the great lakes and rivers of the west. In Ogilvie's Encyclopaedic Dictionary, published in 1894, under the word "aquarium," this remark is made: "The most wonderful aquarium in the world was that of the Fisheries department of the World's Columbian Exposition, held in Chicago in the summer of 1893."

Illinois had on exhibition, preserved in glass jars, a collection of one hundred and thirty-nine species of fish, gathered from all parts of the state. The darters

and minnows alone numbered thirty-two species, ranging in length from one to six inches. In the lagoons thousands of lake trout were turned loose, the tanks not being able to contain the great number sent, and they no doubt soon made their way into Lake Michigan. The process of fish hatching was shown through all its stages, and, after hatching, millions of the tiny fish were sent out into the lake to fare for themselves. There was also shown the apparatus used in fishing,—hooks, lines, rods, nets, and numerous models of fishing boats. Many models of actual vessels, perfect in every detail down to the tiny tackle-blocks and dead-eyes, were shown with every rope and sail in its proper place. These models illustrated the history and development of fishing vessels from the early times down to the present, and were veritable works of art in the completeness of their finish.

FORESTRY BUILDING AND EXHIBITS

The exhibits in the Forestry Building were of the most interesting character. If one were to say that this was one of the most useful, beautiful and wonderful displays on the grounds, he would not be far from the truth. "One thing that makes the Forestry Building attractive," said a writer, "is that it contains the only forestry exhibit, as such, that the world ever saw. All previous world's fairs have dabbled in this subject, assigning it a corner in the agricultural department. But never before has a great separate building been devoted to it, and never before has the collection been so exhaustive."

Only a brief notice can be given of the exhibit here. The teak wood from Burmah was shown in carved specimens for architectural ornaments, besides square timbers and planks for shipbuilders' use. The Japanese sent a couple of boards, smoothed but not varnished, the grain of one like watered silk, and that of the other apparently a series of ridges, so that when the hand was passed over its surface one was surprised to find it level and smooth. The collection of specimens sent from the Argentine Republic astonished every one by its variety and richness. Brazil, Paraguay, British Guiana, and other Southern American countries sent a wealth of specimens. Those from Mexico were built into a pavilion of striking design. Canada's exhibit, though an extensive one, conveyed but an imperfect idea of its immense forest resources.

The exhibits of the United States government in this department were scientific and complete. The several states of the Union made exhibits of the various woods produced within their various domains. California, Washington and Oregon excelled all in size of timber; the Western states, especially Michigan, were represented by a vast number of specimens. The forestry exhibits of New York state were complete and well prepared, consisting of one hundred species. North Carolina, Louisiana, West Virginia and Kentucky sent representative specimens of their forest resources.

THE ILLINOIS BUILDING

The State of Illinois made an appropriation of $800,000 for its representation at the Exposition. Of this amount $250,000 was expended on the building. It was the largest of any of the state buildings, built in the form of a Greek cross, the principal axis of which was four hundred and fifty feet long and one hundred and sixty feet wide. It was surmounted by a dome two hundred and thirty-five

feet high and seventy-five feet in diameter. Within the building a large amount of space was assigned for exhibits, with ample reservations for reception rooms and offices. One portion of the building, known as Memorial Hall, contained a collection of war relics from the state capitol,—battle flags of Illinois regiments, mementos of Lincoln, Grant, Logan and others. In the rotunda was installed an artificial lake with a fountain and cascades, spanned by a rustic bridge, from which might be viewed great numbers of fish swimming in its depths. The margin of the lake was lined with aquatic plants and its banks with shrubs and flowers. An educational exhibit was regarded as the culminating triumph of all the exhibits in this building; there was a model district school room fully furnished and equipped, and the schools for defective children were also represented. The University of Illinois illustrated all departments of its work.

THE GOVERNMENT BUILDING

The Government Building, as well as the Illinois Building, was much criticised, especially in regard to the domes of the two buildings. It was said that the domes, and indeed the general designs of these buildings, did not reach the artistic standard of excellence achieved in the designs of the other great buildings of the Exposition. It may be remarked, however, that the general appearance of the buildings, as viewed from any point at some distance, was greatly indebted to these domes for a noble impression. Neither of the buildings referred to was near enough to the group surrounding the Court of Honor to come into competition with the great dome of the Administration Building. The architects in both cases doubtless had in mind the appearance of the buildings in mass as well as individually, and it seemed to many observers that such an effect was accomplished to an eminent degree.

The Government Building was a well built structure, measuring three hundred and fifty by four hundred and fifteen feet for its ground area, and cost four hundred thousand dollars. The imposing central dome was one hundred and fifty feet in height, and one hundred and twenty in diameter. Included in its exhibits were those of the Departments of War, State, Postoffice, Treasury, Justice, Agriculture, Interior, and the Smithsonian Institute. The Mint showed every coin made by the United States, and the Bureau of Engraving exhibited specimens of the paper money of the national government. There was also an exhibit of heavy guns and explosives. In the center of the rotunda was placed a large Sequoia tree, a section thirty feet long here standing upright, its diameter at the base being about the same.

ENGLAND'S BUILDING AND EXHIBITS

The Victoria House was so named at the request of the Queen herself. Its design was that of the best type of English half-timber houses of the Tudor and Elizabethan period. It occupied a beautiful site near the shore of the lake. The interior finishing and furniture were reproductions from many well known houses in England. In front of the building was a replica in terra cotta of the large group "America," from the Albert Memorial in London. This group was presented to the City of Chicago by Henry Doulton, Esq., of the great English pottery firm of that name.

The Queen loaned a painting to the Exposition, owned by herself, entitled, "The Roll Call," the work of Miss Elizabeth Thompson when she was only twenty-two years of age. The opportunity of seeing this renowned painting was greatly appreciated by visitors to the Fair. This painting, it will be remembered, represents the muster of a regiment after a battle in the Crimean war, the men bravely appearing in line, though showing the effects of the sanguinary conflict in which they had been engaged. Yet the picture was without exaggeration in the details, and full of force and interest for those who admire brave deeds.

The British shipbuilders were well represented by a great variety of models of war and merchant vessels, showing the development of marine architecture from early times. All the great Transatlantic and Oriental steamship lines sent models of their many splendid ships, the models in many cases costing thousands of dollars each. The greatest and most valuable of all the numerous models shown at the Exposition was that of the ill-fated "Victoria" which is referred to elsewhere.

A huge locomotive, known as the "Queen Empress," and a number of other engines, were seen at the Transportation Building. The Queen Empress was without the familiar cowcatcher to be seen on engines used in the United States, neither was it provided with any shelter for the engineer. It is said that English engineers scorn such a protection, and declare that it would hamper them in their movements in running the engine. In bad weather they simply put on an oil-skin coat as does the sailor, and thus face the storm in perfect comfort.

At this exhibit was seen the historical "Rocket" of Stephenson in a full sized model, as well as other ancient forms of locomotive engines. The road-bed equipments of the early railroads in England were shown, exhibiting all stages of development from wooden and strap-iron rails to later forms. Before sleepers and ties were used the methods of fixing the tramway to the surface, with the rails resting upon stone blocks and longitudinal timbers, were illustrated.

THE FRENCH BUILDING AND EXHIBITS

The building erected by the French nation occupied a prominent site near the east end of the Art Palace. The entire structure was of elaborate design and exquisite beauty. A semi-circular colonnade extended between two pavilions, thus forming a court in which was a bronze fountain. In the vestibules and balconies were replicas of famous statuary, and many beautiful paintings by eminent artists. Historical interest centered about the collection of memontos and relics of Washington and Franklin treasured by the French people, and the sword of Lafayette presented to him by the American Congress. The French government had appropriated four million francs for the purposes of the Exposition, and added to this were the immense expenditures of the French exhibitors in their various displays. Not less than ten millions of dollars' worth of goods, it is said, was shown in the French sections of the various departments of the Exposition, and in this is not included the immense values of the paintings loaned by the French to the great collection in the Art Building.

For dainty refinement of design and exquisite finish the French exhibit of furniture distanced all competitors,—cabinets of boxwood and onyx, in ormolu and lacquer, gilded wood chairs and sofas upholstered in silks and brocades.

GERMANY'S BUILDING AND EXHIBITS

The official building of Germany at the Exposition was one of the largest and most costly of the foreign buildings. The government of Germany appropriated $900,000 for its building and exhibits. The German Building alone cost $250,000, and it was given to the City of Chicago after the Fair. It is still standing where it was built. Its leading architectural features are partial reproductions of several historical buildings in Germany. It is surmounted by a lofty tower one hundred and eighty feet in height, and its front, sides and interior are decorated with characteristic designs. The exposed timber work of the exterior walls on some portions of the building give it a most picturesque appearance. A tower at the southwest angle contained in its belfry a chime of three bells, four, four-and-a-half, and five feet high, respectively. These bells had been made for a memorial church in Berlin, erected by Emperor William in honor of his grandmother, the Empress Augusta, and were loaned to the Exposition prior to their use in that church, thus showing the Emperor's great interest in the success of the enterprise. Within the building were shown many documents of great historical interest, an extensive library of books, while the walls were frescoed with many designs and inscriptions. A visit to this building was a glimpse of the German's Fatherland.

The statue of an allegorical figure entitled "Germania" was placed in the open air in the south part of the grounds. The statue was of copper and stood twenty-five feet high on a pedestal which raised it to a height of fifty feet above the surface, the whole placed on a platform of elaborate design. Its first appearance in public was at the Exposition, as it was intended to be placed on the new building for the Reichstag in Berlin after the Exposition had closed. This statue was exhibited here through the special permission of the German Emperor.

SPAIN'S BUILDING AND EXHIBITS

The Spanish Building was an impressive structure, modeled after a famous building in Valencia, Spain. The building was formally opened by the Princess Eulalia, a member of the royal family of Spain, while a Spanish military band of eighty musicians gave a concert on the adjoining lawn. Within, the building was filled with twenty-four spiral columns supporting a groined arch ceiling, and the walls were covered with paintings and works of art. Here, as well as at the Convent of La Rabida, were interesting relics of Columbus loaned by the Duke of Veragua, who was also present at the Fair; and there were many articles sent by the women of Spain. This building divided the honors with La Rabida. It cost the Spanish government forty-five thousand dollars to construct. The total cost of the Peninsular exhibits to the government of Spain amounted to a quarter of a million of dollars; and the value of the exhibits, including the many priceless relics and original documents, was simply incalculable.

The magic that lies in the very name of Spain has often appealed to the imagination of poets and romancers. A verse from a poem printed in the "Century Magazine" for May, 1893, by Charles W. Coleman, expresses the sentiment of the dreamer whose visions wander towards that land of romance and chivalry.

"Be never the land so far, so far,
Be never so broad the main;
There's a ship on the sea that belongs to me,
And over the sea lies Spain."

The generous treatment received by the American people from the Spanish authorities and the Spanish people at the time of the World's Fair causes one to feel a poignant regret that in later years the two nations should have been engaged in a bloody war with each other. The courtesies shown to our people by the Spaniards, the consideration given to our many and urgent requests, the liberal expenditures they made that our Exposition might be a success, showed a friendliness towards us, and a devotion on their part to high ideals of international relations, which seemed to render it impossible that this flow of humane sentiments and actions could be rudely interrupted by letting loose the dogs of war.

Had an International Tribunal, with the prior consent of all nations, been able to take jurisdiction when the war clouds began to gather, what losses of life might have been prevented, what destruction of ships avoided. The Spanish people, whose esteem we wished to possess, might never have been obliged to suffer the deep wounds to their national pride inflicted upon them by us in the unhappy war of 1898. But would Cuba have been free?

JAPAN'S BUILDING AND EXHIBITS

In the period of preparation for the Exposition the Mikado of Japan, learning of the plans for a World's Fair in the United States, asked permission to present to Chicago, for use during the Exposition season, and to be retained permanently, a building which should be a partial reproduction of one of the most celebrated historic buildings of Japan, the Ho-o-den Palace. A place was found for this on the Wooded Island, where the surroundings were in harmony with the structure. The island was connected with the mainland by bridges of Japanese design, and the buildings and bridges have since become permanent and attractive features of Jackson Park.

Early in 1892, a company of Japanese artisans made their appearance in Chicago, bringing with them their own tools and implements, and the materials for the construction of the proposed building. This band of Japanese workmen were watched with great interest by persons admitted to the grounds in the early period while the building was going on. They were very skilful in the use of their implements. Their lacquered and polished woods were remarkable for the power of withstanding climatic effects. "Little Japan," said an editorial writer, "considering its distance from Western civilization, must be credited not only with making a magnificent exhibit at the World's Fair, but with a display of remarkable enterprise and public spirit. It was the first of all the nations to complete its buildings." In speaking of the thorough preparations made by the Japanese for all their exhibitions the editor further says: "There is not another nation represented at the Fair which has come here as thoroughly equipped as the Japanese. The explanatory works they have brought form a large and valuable encyclopaedia of information, and testify eloquently to the enterprise and public

spirit of this little people of the Orient, who have invaded a World's Fair in competition with the older Western nations and carried off extraordinary honors."

In the light of subsequent history this language in reference to "little Japan," seems odd enough, though it fairly indicated the usual state of mind then existing regarding that wonderful nation of people. When we stop and consider that in the years intervening Japan has been engaged in two great wars, both of them with nations supposed to be far superior to her in resources, and has come off victorious in both, the estimates then held seem totally inadequate, and lacking in appreciation of her real power and fast rising eminence in Western arts and culture.

ORIENTAL CONTRIBUTIONS

The Sultan of Turkey sent sixty Arabian horses, or "steeds" as story writers prefer to call them, accompanied by a troop of Bedouin Arabs in their native dress to care for them. The exportation of full-blooded Arabian horses is forbidden by law in Turkey, but in this case the horses being intended for exhibition only, the Sultan withdrew the restriction placed upon them, and by special decree permitted these horses to be exported. Dromedaries and camels also formed a part of this exhibit. The Ottoman government also provided for a small but beautiful building on the grounds of the Exposition, the interior of which was finished with panels of inlaid wood, and richly decorated in "barbaric pearl and gold," with many texts on the walls taken from the Koran. In this building were displayed many priceless rugs, rich fabrics and furniture.

Siam sent to the Exposition a pair of elephant tusks over nine feet in length, and a plank of teak wood three inches thick and nearly six feet in width. From India came a six-foot model of the Taj Mahal, the most beautiful building in the world, and a variety of fine inlaid work. A separate building was filled with objects from India in handmade brass work, carpets and rugs, Hindoo shrines and images of Buddha, and the work of Indian armorers,—targets, battle-axes, and swords. There were in this exhibit tusks of ivory carved in intricate lace patterns, within which were minute figures carved with infinite patience and perfection. The Chinese section in the Manufactures Building was a marvelous collection of curious articles,—shrines, idols, porcelain ware, and ivory carvings.

CHAPTER XLIV

THE EXPOSITION IN FULL SPLENDOR

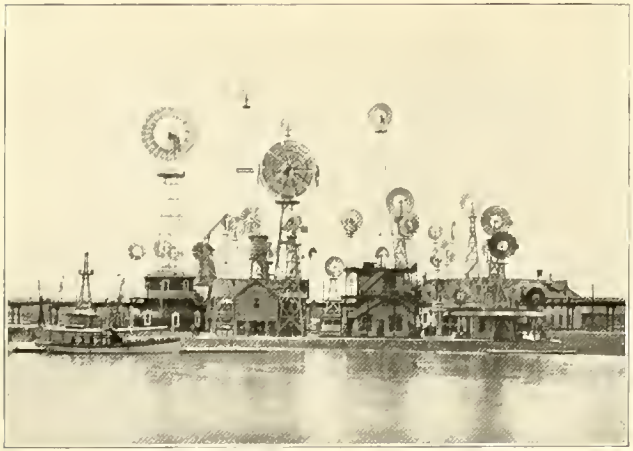
THE STATE AND FOREIGN BUILDINGS—CONVENT OF LA RABIDA—THE VATICAN'S WARM INTEREST IN THE FAIR—RARE EXHIBITS SHOWN IN THE CONVENT—SPECIAL GUARD BY UNITED STATES SOLDIERS—PRICELESS RARITIES BROUGHT FROM SPAIN AND RETURNED THERETO IN UNITED STATES WAR VESSEL—THE ELECTRIC FOUNTAIN—THE MACMONNIES' FOUNTAIN—TREASURES OF ART EXHIBITED—LARGE CONTRIBUTIONS BY PAINTERS AND SCULPTORS—AMERICAN ARTISTS WELL REPRESENTED—ENGLAND'S CONTRIBUTIONS—WONDERFUL EXAMPLES OF FRENCH ART—SPANISH AND ITALIAN EXHIBITS—AUSTRIA, THE NETHERLANDS AND RUSSIA ADD IMPORTANT CONTRIBUTIONS—JAPANESE ART—THE BOARD OF LADY MANAGERS—THE WOMAN'S BUILDING—THE CHILDREN'S BUILDING—ACCOUNT OF THE "COLD STORAGE FIRE"—THE WORLD'S CONGRESSES—THE PARLIAMENT OF RELIGION—MR. HIGINBOTHAM'S COMMENTS—CARDINAL GIBBONS' OPINION OF THE FAIR—THE SUNDAY CLOSING QUESTION—COURSE ADOPTED BY THE DIRECTORY.

STATE AND FOREIGN BUILDINGS

OME account of the numerous state and foreign buildings will be expected in this place. There were thirty-eight buildings constructed by as many states, and eighteen by foreign nations. The locations of these buildings were in the north end of the grounds near the Art Buliding.

The building of the State of Illinois, some description of which is elsewhere given, was by far the largest and most costly, as it was appropriate it should have been. Most of the buildings were designed as resting and meeting places for the people who attended the Exposition from the states which had constructed them with accommodations also for visitors from other sections, who were welcomed at all times in the most cordial manner. In these buildings were found full details of the production and advancement in the arts of the states represented, and in some cases exhibits were made which were in addition to the regular exhibits in the larger buildings.

California's building was next to that of Illinois in size, and was built on the model of an old mission house, with a roof garden decorated with palms. New York State's building was a beautiful example of the Italian villa style of architecture, three stories high and richly furnished. Pennsylvania's building was colonial in design, and in part was a reproduction of Independence Hall in Philadelphia, in which was placed the old Liberty bell. Massachusetts furnished a replica of the John Hancock house in Boston, surmounted by a gilded codfish as a weather vane, after the manner of the State House on Beacon Hill. Florida's building

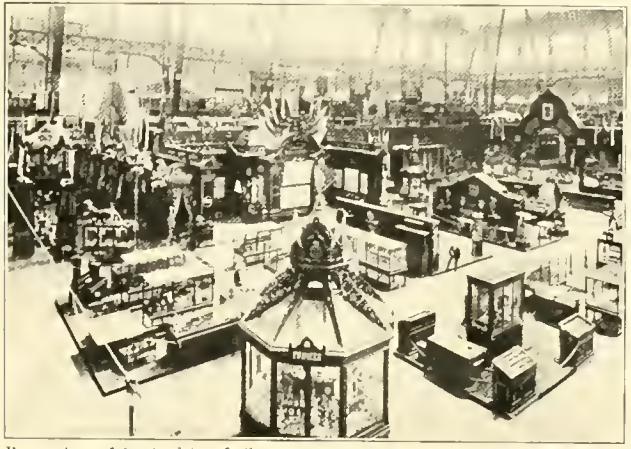


By courtesy of D. Appleton & Co.

THE EXHIBIT OF WINDMILLS

By courtesy of D. Appleton & Co.

NEAR THE EASTERN END OF THE MIDWAY PLAISANCE



By courtesy of D. Appleton & Co.

THE RUSSIAN SECTION OF THE MANUFACTURES BUILDING

By courtesy of D. Appleton & Co.

THE MAIN AVENUE IN THE MANUFACTURES AND LIBERAL ARTS BUILDING

was a reproduction on a smaller scale than the original, of old Fort Marion at St. Augustine, its walls covered with plaster and coquina shells. Iowa's building was an extension of a structure previously standing in the park, where it had been used as a shelter. After the Exposition it was restored to its original form and use. Maryland's building was a fac-simile of the capitol at Annapolis. Virginia's building was a reproduction of Washington's old home at Mt. Vernon. The building for the State of Washington was constructed largely of immense logs, some of them four feet in diameter, brought from that state, and at the front was planted the giant flagstaff, two hundred and fifteen feet in height, referred to elsewhere.

Beautiful structures were built by the following states, embodying many interesting features in their designs and surroundings: Arkansas, Colorado, Connecticut, Delaware, Georgia, Idaho, Indiana, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, North Dakota, Ohio, Rhode Island, South Dakota, Texas, Utah, Vermont, West Virginia, Wisconsin, and Wyoming.

THE FOREIGN BUILDINGS

Some of the buildings erected by foreign nations have been noticed elsewhere in this account of the Exposition. Referring to them more at length in this place the first one to be noticed is that of Brazil. This building was a strikingly ornate structure, built at a cost of ninety thousand dollars. The Government of Brazil made an appropriation of $650,000 for the use of its Commission, and in addition Brazilian exhibitors themselves made contributions estimated at $350,000. This building won a large share of the admiration bestowed by the visitors on the foreign buildings. Naturally coffee was the chief exhibit of the Brazilians, of which they had some two thousand different specimens on view.

The pavilion erected by Ceylon was built of woods brought from that far distant island. A party of fifty-three natives of Ceylon came to the Exposition, with three hundred tons of materials, and attended to the work of construction themselves, just as the Japanese did with their building. Wonderful carvings were shown on the exterior, and the interior was finished in satinwood, teak and ebony woods. India's beautiful pavilion, built after Oriental models, and filled with rare and costly articles, was a conspicuous object among the foreign structures.

Among the foreign buildings were those of Canada, the interior of which was finished in a great variety of native woods; of Colombia, with an exhibit of remarkable interest to ethnologists; of Costa Rica, with bird specimens native to Central America; of Guatemala, with an important coffee exhibit; of New South Wales, with a characteristic exhibit of Australian products; of Norway, containing exhibits of fish and fisheries; of Sweden, with exhibits of Swedish steel and iron, and fine specimens of artistic jewelry, silver ware and tapestries; and of Venezuela, with many varieties of her products on exhibition.

THE CONVENT OF LA RABIDA

"Along the Palos shore where rose the head
Of rocky Rabida against the sky,
Columbus, with his little son, passed by
To beg at convent door for rest and bread.

His eager feet from court to court had sped,
From churchly scorn and Learning's blinded eye,
To find at last a hope that would not die.
Within the sacred walls where life was fed.
And here in that wide land he greatly found,
Above the murmur of the inland sea,
La Rabida still stands on gracious ground,
Outreaching arms of pity to the plea
Of childhood ill and mother love profound.
And breathing hope in all her breezes free."

—Sonnet, by Horace Spencer Fiske.

The reproduction of the ancient Convent of La Rabida at the Exposition was suggested as the most appropriate shelter for the relics of Columbus which it was proposed to gather together for the occasion. The structure was a replica of the Convent of La Rabida at Palos, Spain, the port from which Columbus sailed on his world-renowned voyage of discovery. No building in the world was so closely identified with the discovery of America as the convent, or as it is sometimes called, the Monastery of La Rabida. It was at its door that Columbus, disappointed and disheartened, asked for food and shelter for himself and his child, and it was here that he found an asylum until he secured the royal authority which he sought to obtain for his voyage. In this convent Columbus lived while making preparations for his voyage, and it was here that he again found shelter when he had returned with the news of his great discovery.

The suggestion of constructing such a replica met with world-wide acceptance. Pope Leo XIII took a deep interest in the proposal, and considered it a most appropriate plan to use a facsimile of that venerable building as a shelter for the Columbus relics, and made it known that he would contribute some objects of art and of historical interest from the treasures of the Vatican. The Papal Secretary of State, Cardinal Rampolla, gave the visiting Commissioner gratifying assent to his requests, except as to certain originals which could only be furnished in facsimiles. The Cardinal said that the question of loaning the records of the Vatican had been considered by the College of Cardinals, and he was authorized to say that every printed book or map or other article desired would be sent to Chicago, but that "they had decided that it was not proper for them to remove from the Vatican any original papers belonging to the records of the Church. He said the question had received very serious consideration; that the Holy Father and the officers of the Church were anxious to do everything in their power to promote the success of the Exposition, but they did not think themselves justified in taking the risk that would attend the removal of original papers from the files. They had, however, made arrangements to furnish facsimiles of any documents that might be desired." The conditions were accepted, and the magnificent exhibit of the Vatican at La Rabida was the result. The success of the negotiations carried on to obtain these exhibits is to be attributed to the industry of the Exposition Commissioner, Mr. William E. Curtis.

The building, which still stands in Jackson Park on the spot where it was built, is now used for a children's sanitarium. It cost twenty-four thousand dol-

lars to construct, and, during the period that the relics were sheltered there, it was constantly guarded by United States soldiers detailed for the purpose. Among the most valuable documents were those sent by the Duke of Veragua of Spain, a lineal descendant of Columbus. These treasures were brought from Europe in a United States man-of-war, and were returned in the same manner. Many of the facsimilies, however, were left in this country as gifts to the Field Columbian Museum.

There were shown in the Convent a book of Marco Polo's Travels and a breviary which Columbus carried with him on his first voyage; many maps, charts, old arms and armor, and a crystal locket in which was enclosed a portion of the ashes of Columbus. "Historically the Monastery of La Rabida might be considered the shrine, the heart, of the Exposition," says the History. Standing among the many majestic monuments to Columbus in Jackson Park, every visitor recognized the fitness of this modest edifice, "a model of the simple little structure that sheltered Columbus when he was homeless and friendless." From one of the windows of the Convent might have been seen the caravels floating in the adjoining lagoon.

THE ELECTRIC FOUNTAINS

Two great electric fountains were built in the Grand Basin, one on either side of the MacMonnies' Fountain. The caissons to surround and protect the apparatus for their operation were sunk nine feet below the level of the lake, the sides made water tight. Each of the fountains was a combination of nineteen separate fountains, with a series of color screens, so that an immense variety of color effects could be produced by the operators. The operating of the fountains was directed by a manager in one of the towers of Machinery Hall, and from this point signals were sent to the operators stationed in the caissons. The basins of the fountains were each sixty feet in diameter, and the streams were directed in such a manner that fanciful shapes were produced, such as the popular "wheat sheaf," and many other striking effects.

The night displays of these fountains were an endless source of wonder to the visitors, the changes of colors producing effects as mysterious as they were beautiful. A writer of the day described the scene as follows: "A torrent of flashing silver changes to mellow amber, resolves to the pale green of an ideal fairy's moonlight, takes on a cerulean hue, passes to an opaline, iridescent and exquisitely beautiful, merges into a Vesuvian cataract of fiery lava, and returns to a cascade of molten silver."

THE MACMONNIES' FOUNTAIN

The form of the MacMonnies' fountain was that of a decorated barge, in the center of which was the figure of "Columbia" seated, and the rowers eight symbolic figures in standing positions, representing the arts and sciences. In the bow was an allegorical figure of Fame with trumpet in hand, and at the helm was Father Time directing its course. Rising out of the water near at hand were the horses of Neptune, himself in command, and attended by tritons, mermaids and dolphins. This fountain was regarded as a masterpiece, and held a conspicuous place in the Grand Basin directly in front of the Administration Building.

TREASURES OF ART

The Art Palace contained over ten thousand distinct exhibits, of which half were oil paintings, and the other pastels, water colors, engravings and etchings, drawings and statuary. "The collection," says the History, "was the most important, the most catholic, and the most complete exhibition of all the schools that has been made in modern times, not excepting the Paris Exhibition of 1889, in which the Germans had no part. Such a collection of the best works of the American painters, of artists whose studios are in Paris, and of those residing in London or Rome or the German homes of art, as well as of those who live and work at home, was never before assembled. The whole left an impression of the artistic activity of the American nation and of the correct feeling and tendency of the art and the technical proficiency of American artists that raised us above some countries where the art of painting is an old and proud tradition; though of the native school, the genuine American art, there was yet no sign.

"The collection was generally permeated with French influence, except the works of artists trained in Munich or Dusseldorf. Most distinctively American were the landscapes, and of these the best were often the ones that showed the least French impress. The working of English tradition was seen in the artists of home training who affected romantic, sentimental, or humorous subjects. There were in the American section over eleven hundred oil paintings, most of which had before been exhibited in Europe or America. The range of subjects was very wide, covering everything,—ideal, allegorical, sacred, rarely historical, and pastoral themes, portraiture, landscape, seascape, still life, domestic and society *genre*, realistic compositions of popular life, and humorous extravaganza or mystic fantasy."

AMERICAN ART AND COLLECTIONS

In the American section there were one hundred and forty-eight pieces of statuary. "Those American sculptors whose style was formed by classical studies, or under the influence of European schools," says the History, "made a very good showing beside their competitors of other countries. Those who have drawn their chief inspiration from nature and life on this continent furnished some of the strongest and most original work that was seen at the Exposition." Bush-Brown, Dollin, Tilden, Preston Powers, and others, in their work, represented scenes from the life of the plains and mountains in many striking compositions. Daniel C. French, the sculptor who designed the great statue of the Republic which stood at the eastern end of the lagoon in the Court of Honor, also had in the collection his well known work, "The Angel of Death," now a part of the collection of the Art Institute.

The American artists here found a great opportunity to show that their work could stand comparision with that of other nations. Thus the work of American artists, retrospective as well as contemporary, was very full and complete, and in addition famous collections of foreign art, possessed by American collectors, were shown in special loan exhibitions, the selections showing a high order of discrimination.

An exhibit of the works of the early American painters was loaned from private collections, which contained many good examples of Gilbert Stuart, Benjamin West,

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THE FISHERIES BUILDING

Copley, Inness, Peale, Allston and the other pioneers of art on this continent. Other American painters represented were Winslow Homer, Whistler, McEwen, Church, Abbey, Shirlaw, Sargent, Eastman Johnson, Frederick Remington, Kenyon Cox, and in sculpture Edward Kemeys and our own Lorado Taft.

"Another loan collection of a hundred works from American private galleries contained a congeries of masterpieces of the modern French schools such as could with difficulty be matched even in Paris, comprising some of the most famous works of Millet, Corot, Troyon, Diaz, Rousseau, Daubigny, Fromentin, Delacroix, Decamp, Meissonier, De Neuville, Mauve, Ingres, Gerome, Fortuny, Degas, Manet, Cazin, and many others. There were good examples also of the English masters. Constable, Swan, Morland and Watts.

ENGLAND'S CONTRIBUTIONS

"The English painters, who are scarcely more familiar to Americans than those of Austria or Russia, were determined to make a fuller and more creditable exhibit than they had at Philadelphia, and they succeeded so well in their purpose that none of the other art galleries was so thronged with admiring gazers, whose delight was amply justified; for Sir Frederick Leighton and his fellow-commissioners had made a most careful selection from the most prominent works of recent years, forming an exhibit equal in general excellence to that of any other country. Besides the best works of forty-eight of the leading members of the Royal Academy, living and deceased, there were the choicest products of the Hibernian and Scottish academies and noted paintings of outside artists characteristic of each new school and tendency." Some of the British painters represented were L. Alma Tadema, Sir John Millais, Hubert Herkomer, G. F. Watts, Walter Crane and many others.

CONTRIBUTIONS OF THE FRENCH PEOPLE

From France came five hundred paintings in oil, one hundred in water colors, and one hundred and fifty pieces of sculpture. The paintings were thoroughly representative of the different methods and manners of the French school. Besides those French painters mentioned above there were examples of the work of Jules Breton, Raffaelli, Flameng, Dupre, Veyrassat, Bougereau, Marais, and Delort.

The French collection of sculptures included two hundred and forty-one pieces. "While in refinement and technical perfection the French work excelled all the other sculpture," wrote a critic, "in freshness of ideas and vigor of treatment the sculptors of the New World bore off the palm." The "Rhinoceros Attacked by Tigers," by Cain, the "Conqueror," by Sanson, the "Diana," by Lombard, to mention but a few at random, were noteworthy specimens of high excellence. M. Bartholdi had a group of colossal size representing the meeting of Washington and Lafayette. "There were few portrait busts in the French collection, in contrast with the American and English sections, where these abounded."

The collection sent by the Bureau des Monuments Historiques consisted of replicas in plaster of sculptures which appear on historic French buildings. There were more than one hundred and fifty of these, some of them of immense size, among them a portion of the facade of Amiens Cathedral, a doorway from Notre Dame

in Paris, and examples from Rheims, Rouen, Chartres, and Limoges, besides many reproductions from the early sculptors. All the architectural casts were presented to the city of Chicago, and it is interesting to mention that these remarkable architectural replicas may now be seen in Blackstone Hall at the Art Institute. In the publication of the Institute for 1910, containing a historical account of the institution and a description of its contents, occurs this reference to the collection: "These casts, of cathedral portals and other architectural sculpture from the eleventh to the nineteenth century, were sent to the Columbian Exposition by the French Government, and thence passed into the possession of the Art Institute. The collection was formed under the direction of the French National Committee on Historic Monuments, from the Trocadero, the Louvre, and the Museum of Decorative Arts in Paris. Some of the casts are thirty-five feet long and more than thirty feet high."

One of the noteworthy exhibits made by the French was the collections of casts which were reproductions of the collections kept in the Trocadero Palace at Paris illustrating the history of French Sculpture. These, with the architectural casts previously spoken of, were presented to the Exposition by the French Government, and may now be seen at the Art Institute.

SPANISH AND ITALIAN EXHIBITS

"The paintings in the Spanish exhibit, though the principal masters of Spain were absent, were all of fair merit and remarkably even in quality. The Spanish paintings were characteristized by bright coloring and sunshine. Scenes in Columbus' voyage of discovery and like historical subjects were treated in many of them, and there were scenes of bull fighting, dancing, and pictures of anecdote and incident and still life, usually handled adroitly with technical skill. A couple of military pictures, full of action, were cleverly painted in an impressionist manner."

"Italy sent a collecton of some two hundred oil colors that were fairly illustrative of contemporary Italian art, at least the light and pleasing phase of it, which seemed redundant, consisting so largely of young female figures in gay costumes, very well drawn and excellent in harmony and depth of coloring. There were sea pieces also correct and pleasing, Venetian scenes in the open air with charming female figures, and some pieces of domestic *genre* not lacking invention and diversity."

THE GERMAN CONTRIBUTIONS

"The Germans made a special effort to form a collection of their best works on this occasion. Their artists were as eager to exhibit their work as those of any other nation, and, besides their contributions, the National Gallery of Berlin and the Bavarian Government loaned many choice paintings and sculptures. The galleries of Dusseldorf, Dresden, Weimar, and Carlsruhe also loaned some of their finest examples of the recent schools of German Art. A bronze statue of William I was loaned by the Royal Academy of Berlin. The catalogue of the German section enumerated five hundred and four paintings, one hundred and eighteen pieces of sculpture, and fifty engravings and etchings. Max Koner's portrait of the present Emperor was remarkable for the strong and original treatment of flesh

tints and textures. The patriotic loyalty of the Germans was manifested in portraits of the three emperors in every uniform, attitude, and scene, by various artists. Professor Saltzmann had an imposing canvas representing the Emperor whaling in the North Sea. Professor Werner Schuch's picture of him reviewing troops had high merit as a military painting. A monster canvas by Professor Keller pictured the apotheosis of Kaiser Wilhelm I as the founder of the German Empire."

"Austria sent a good selection, consisting of about a hundred paintings, admirable in technique and allied to the German schools, in which the proportion of serious and impressive religious painting was especially noticeable." The most striking work in this section was Makart's Five Senses, a series of allegorical figures.

THE NETHERLANDS AND RUSSIA

The art contributions from the Netherlands included some two hundred oil paintings, and more than a hundred water colors. Canals and sea views with wide stretching levels, were appropriately the leading subjects in this section; while old Dutch scenes and groups preserved the traditions of the early painters. Among the Dutch painters Josef Israels held the leading place, the painters of the Dutch school being very successful with quiet and homely subjects.

The Imperial Academy of Fine Arts at St. Petersburg sent a magnificent representation of the Russian school, consisting of more than a hundred paintings. The animated figures and rich coloring of the Russian masters produced a strong impression upon the visitors at the Exposition Art Galleries. The famous paintings of Verestchagin were shown in this section. "One of the most perfect of modern paintings," wrote a critic, "is Repine's 'Cossacks' Answer,' in which the derisive scorn with which the warriors of the steppes received the summons of the king of Poland to pay homage and tribute, was rendered with intensely dramatic interest."

THE ART OF JAPAN

"The art of Japan had never before been represented in an international exhibition," says the History. "Recognizing the radical difference between the methods, conceptions, and materials of Japanese art and those of the western world, the Art Department did not bind the exhibitors to the formal classification established for other nations, but invited such a thorough and characteristic national exhibit as would be presented in Japan itself. The Japanese exhibit, consisting mainly of a collection of paintings and sculptures of the highest artistic merit, excited the surprise even of those who had visited the island empire and were familiar with Japanese art, for most of these priceless treasures had been guarded in the private apartments of the Mikado's palace."

The fine art collections in this department contained some four hundred pieces, including sculptures in wood, plaster, and bronze and other metals, carvings in wood and ivory, paintings, prints, cloisonné enamels, pottery and porcelains, lacquers, metal work, and architectural models. A teakwood figure of a Japanese philosopher pointing to a skull carved in ivory was a thoroughly characteristic specimen in the collection. Hideous forms, dragons, monsters, with armed men in attitudes of defense or attack, were favorite forms of allegorical compositions.

"The Japanese display of paintings was large, and was notable as proving that, while many brilliant Japanese artists have been trained in the tendency to Western methods and ideas, there are others, perhaps more vigorous and important, that under the influence and teaching of the Japanese Academy of Fine Arts adhere faithfully to the traditional forms and methods. In the collection exhibited, only three paintings in all were executed in the European style."

Among numerous animal pieces some were masterpieces judged by the purest canons of art. There was a great variety of landscapes, and the tapestries and textile pictures were as remarkable and almost as expressive as the paintings. A huge tapestry containing hundreds of figures, woven chiefly by hand with very little aid from a loom, was twenty-two by thirteen feet in size, and was the result of the labors of several sets of weavers working constantly day and night for two years. In cloisonné enameled ware the most striking example was a pair of vases nearly nine feet high remarkable for their beautiful finish and execution. The collection of lacquered work contained some masterly specimens in the form of boxes and cabinets, finished with exquisite delicacy.

The foreign artists represented in the Art Galleries at the Exposition had a powerful incentive to send their best works to America, aside from their disposition to do everything possible to enhance the credit of their respective countries in art production. They had seen the United States become one of the greatest markets in the world for art works, and had noted the steady stream of the art productions of the highest excellence coming to this country. Every foreign artist, therefore, appreciated the value of the reputation he might gain by the exhibition of the best examples of his work.

LADY MANAGERS

A Board of Lady Managers had been provided for in the Act of Congress authorizing the Exposition. This Board was to be of such number and with such duties as should be prescribed by the Commission. The board was created with the same number of members and from the same states and territories as those of the Commission. Mrs. Bertha M. Honore Palmer of Chicago was made President of the Board of Lady Managers, and Miss Phoebe W. Couzins of Missouri Secretary. Miss Couzins was succeeded in April, 1891, by Mrs. Susan Gale Cooke of Tennessee.

It is curious to note that the name of Palmer was honorably connected with the three great Boards exercising authority at the Exposition. Hon. Thomas W. Palmer, formerly United States senator from Michigan, was president of the World's Columbian Commission; Potter Palmer of Chicago was a member of the Board of Directors of the World's Columbian Exposition, and his wife, Mrs. Bertha M. Honore Palmer, was president of the Board of Lady Managers.

This unprecedented organization of women, in their meetings, showed an earnest desire on their own part to carry out to the best of their ability the expectations of Congress and of the Commission. They were, however, hampered in the earlier period of their activities by the want of funds for their expenses, which had not been provided in the act of Congress creating the Board. Accordingly they addressed a communication to the Commission on the subject, requesting instructions in regard to a proposed building. The Commission replied that a suitable build-

ing should be erected on the Exposition grounds for the use of the Board of Lady Managers, that the Board should labor to arouse the interest of the people of their respective states and territories in the success of the Exposition, but "that it was inexpedient at this time to formulate any further instruction." The Commission promised, however, to join with the Board in a request to Congress to make an appropriation for their expenses. This request was eventually complied with, and a suitable appropriation was made by Congress for the expenses of the Board.

The Board of Lady Managers then passed a resolution recommending the erection of a suitable building to be known as the Woman's Building. A copy of this resolution was sent to the Directors of the Exposition with a request that such a building be provided, and in due course it was agreed to. The size of the building was to be two hundred by four hundred feet and the cost was to be $200,000. At the same time it was agreed that a woman architect should be employed to design the structure. Miss Sophia G. Hayden of Boston, a graduate of the Massachusetts Institute of Technology, was chosen. In March, 1891, Miss Hayden came to Chicago and entered upon the task of construction according to the design she had previously submitted, and which had been accepted.

In one of the later appropriations made by Congress for the purposes of the Lady Managers, there was included a provision that ten thousand dollars should be in the form of souvenir coins of the denomination of twenty-five cents, according to a request to that effect. The coins bore on the obverse a portrait of Queen Isabella, and on the reverse a symbolic figure. These coins came to be called "Isabella Quarters," and were readily sold at a premium, thus increasing the amount of the benefit derived therefrom.

THE WOMAN'S BUILDING

The Woman's Building proved to be one of the most popular and talked-of features of the Fair. There was some confusion at times as to the class of exhibits that should be made in the building, it being thought by some that exhibits should be made in the class to which they belonged regardless of the Woman's Building. But it was found that there was ample material displaying the works of art and industry produced by women, for any space in which they could find a place. The use of the building was by no means confined to the display of exhibits, however. It was a place of resort for tired sight-seers, for families with children, and special arrangements for their comfort were made. "The interior of the Woman's Building," says the History, "owing to the various uses to which it was devoted, was quite different in construction and arrangement from the buildings that were intended only for exhibition purposes. It was a two-story structure, with added clearstory and end pavilions, having for its main feature a large central hall or Rotunda, rising to the full height of the building and covered with a skylight. Around this rotunda were grouped the smaller rooms, the pavilions forming large exhibition spaces on the first floor. Entrances were provided on the four sides of the building, those on the east and west being the more important, and opening into large spaces called the Eastern and Western Vestibules. Stairways at the four corners of the rotunda led up from corridors to the second floor. The rooms in the second story were arranged in the same manner around the ro-

tunda, each opening into an arched, cloister-like gallery overlooking the hall. At the north and south extremities of this gallery were stairways on both sides, giving access to the roof gardens and third-story additions."

The Rotunda was the most prominent feature of the Woman's Building, its "geniality and elegance" being among the points of excellence for which an award was given to the architect. The mural decorations, the sculpture, fountains, and other works of art, were done by women entirely, representing nearly every nation in America, Europe and Asia. The center of the vestibule was adorned by a fountain executed in silver and gold, purchased and loaned by the women of Montana. A roof garden was arranged with a large seating capacity as a place of rest and refreshment, and this became so popular that it taxed the ability of the ladies to provide accommodations for the throngs. A model kitchen with daily lectures on the art of cooking was one of the most useful and entertaining of the works undertaken. The attractions of this building were so great that the services of the guards and janitors were required to preserve order on many occasions. A library of books, presenting as nearly as possible a complete view of the work of American women in literature, was also gathered and formed an exhibit of great interest.

THE CHILDREN'S BUILDING

There was erected, under the auspices of the Lady Managers, a Children's Building. The building was constructed at a cost of twenty-four thousand dollars, all of which was raised by a special subscription. Its location was just south of the Woman's Building. The committee in charge of this branch of work consisted of Mrs. George L. Dunlap, Mrs. L. Brace Shattuck, Mrs. Solomon Thatcher, and Mrs. W. W. Kimball, all of Chicago. There were installed a gymnasium, a nursery for infants where mothers could leave their little ones under competent care while visiting the Fair, a kindergarten, a school for deaf and dumb and other unfortunate children, besides many other features and attractions. It is interesting to note that out of ten thousand children cared for at the nursery but one child was left uncalled for, a boy about three months old who was abandoned by an unnatural mother. This infant was taken in charge by the Children's Aid Society, and afterwards provided with a good home.

The exhibits in this building were intended to illustrate child life, its toys and occupations, as well as the most approved methods of rearing children. All foreign countries were asked to contribute articles connected with their child life, and books, toys, dolls, masks, cradles and costumes were received from many lands, and placed on exhibition to the delight of mothers and children.

THE COLD STORAGE FIRE

On the tenth of July, while the Fair was in progress, the Cold Storage warehouse was destroyed by fire. This building was designed to manufacture ice by artificial means, and was intended as an exhibit of ice-making machinery, as well as a place to store perishable materials. Notwithstanding its prosaic purposes it was a beautiful building and attracted much attention, especially the tall, square tower which rose to twice the height of the main structure. Unfortunately the tower had been utilized as a smoke stack, which ran through its center, and in this

originated the fire which proved so disastrous to human life. After the arrival of the Fire Department, twenty men, members of the first company on the scene, headed by Captain James Fitzpatrick, ascended the tower to reach the blazing portion, when suddenly it was discovered that the fire had broken out far below them, and had cut off their retreat by the stairway. There was no escape except by leaping from the tower to the main roof. This they did, one at a time, before the eyes of a horrified throng of thousands of spectators. Several of the firemen broke through the roof by the force of their falls, and were plunged into the seething mass of flames within the building, which had become a roaring maelstrom of fire. Others were too much injured by their fall to move and could not escape. Captain Fitzpatrick, in a dying condition, was lowered to the ground by some of the firemen on the roof, who themselves had scarcely descended before the entire roof fell in. Seventeen men were killed, and nineteen injured in this disaster, the only serious one occurring during the Fair period. Except in this case no fire or other catastrophe took place upon the Exposition grounds.

A subscription was at once started among the spectators for the relief of the families of the unfortunate victims. The gate receipts of the Fair for one day were applied towards the fund, which soon reached a total of $104,000. A portion of this fund was used to relieve immediate distress, and the remainder was invested and the income devoted to the support of the widows and the education of their children.

Doubtless the thorough preparations made in the Fire Department and by the Columbian Guards saved the Exposition from other serious disasters. "Incipient fires were frequent," says the History, "and often more than once in a day the scene would be enlivened by the spirited dash of an engine across the Court of Honor, and the Columbian Guards coming on the 'double quick' in fine order from all directions to the point of danger."

Richard Watson Gilder, the poet, wrote a couple of verses on the Cold Storage disaster, which he entitled, "The Tower of Flame." The words of these verses are as follows:

"Here for the world to see men brought their fairest;
Whatever of beauty is in all the earth:
The priceless flower of art, the loveliest, rarest,
Here by our inland ocean came to glorious birth.

"Yet on this day of doom a strange new splendor
Shed its celestial light on all men's eyes;
Flower of hero-soul,—consummate, tender,—
That from the tower of flame sprang to the eternal skies."

THE WORLD'S CONGRESSES

Between the two wings of the building erected by the Art Institute on the Lake Front Park were placed two large audience halls, with seats for nearly three thousand persons in each. The north hall was named the Hall of Columbus, the south one the Hall of Washington. These halls were temporary structures and were to be removed at the end of the Fair, leaving the space to be occupied there-

after by the Art Institute for its own purposes. In these two halls were held the sessions of the World's Congresses, which were a part of the general plan and under the auspices of the Exposition. It was proposed that the great Fair should not be merely an exhibit of industrial achievements and mechanical triumphs, but also a meeting place for discussions and conferences on themes of world-wide importance and interest. In the words of the announcement "the world of government, jurisprudence, finance, science, literature, education, and religion should be represented in a congress of statesmen, jurists, financiers, scientists, literati, teachers, and theologians, greater in numbers and more widely representative of 'peoples, nations, and tongues,' than any assemblage which had ever yet been convened."

The "World's Congress Auxiliary" was organized with Mr. Charles C. Bonney as president. This department of the Exposition was recognized by the United States Senate, in a report of the committee on Foreign Relations, "as the proper agency to conduct international congresses in connection with the World's Columbian Exposition." This gave the department a proper diplomatic standing, and thus the co-operation of foreign governments and learned bodies was secured. Quoting from Mr. Bonney's report, which appears as an appendix in President Higinbotham's report, it is said: "The printed publications of the Auxiliary declared that it was the leading idea of the World's Congresses of 1893, to bring the leaders of human progress from the various countries of the world together at Chicago, during the season of the World's Columbian Exposition, for the purposes of mutual acquaintance and the establishment of fraternal relations, and the chief work of the congresses would be to review the achievements already made in the various departments of enlightened life, and sum up in each congress the progress of the world in the department involved, to the date of the congress; to make a clear statement of the living questions of the day which still demanded attention, and to receive from eminent representatives of all interests, classes, and peoples, suggestions of the practical means by which further progress might be made and the prosperity and peace of the world advanced."

THE PARLIAMENT OF RELIGIONS

The various departments on the program of the Auxiliary occupied the time from the first session held, May 15th; each one holding sessions of several days. These sessions were continuous until the close of the program, late in October. There were congresses of the department of Woman's Progress, that of the Public Press, Medicine and Surgery, Temperance, Moral and Social Reform, Commerce and Finance, Engineering, Music, Art, Literature, Education, Government, Science and Philosophy, and a general department, comprising such branches as were not represented in any of the other categories mentioned. The series culminated in the great Parliament of Religions, which included forty-five general divisions. Most of the participating organizations held denominational congresses of their own, but the chief interest of the religious congresses centered in the Parliament of Religions, which began its sessions on September 11th, and continued for seventeen successive days.

The Parliament of Religions was organized by Dr. John Henry Barrows. All the great religions of the world were represented in this congress, which was the first one of the kind in the history of the world. Its proceedings excited a world-

wide interest, and its echoes were heard in all lands. This congress stands, in the estimation of many thinking men, as the most enduring monument of the work of the Exposition. It met with an extraordinary success, the attendance at its sessions often overflowing the capacity of the hall in which its sessions were held. "The Parliament of Religions, unique and unprecedented," said Professor Max Müller, "will be remembered and bear fruit when everything else of the mighty Exposition shall long have been swept from the memory of man."

"I do not hesitate to say," said Mr. Higinbotham, in an address, "that the highest award belongs to the Parliament of Religions and its creator [Dr. Barrows]. As I had the pleasure of saying at the opening ceremonies, it was the proudest work of the Exposition." And when Dr. Barrows passed away in 1902, Mr. Higinbotham, at the memorial exercises, summed up in many glowing passages the importance of this branch of the Exposition's activities. "Dr. Barrows," he said, "believed that any religion was better than none. This made it possible to achieve what seemed impossible. He realized keenly the obstacles, the mountains of prejudice and rivers of tradition to be overcome. He realized at the outset that others with larger experience and wider influence in the world of affairs had tried to bring together a Parliament of Religions, and had all ignominiously failed. . . .

"It was not his purpose to array these religions against each other in an historical controversy, or even to place emphasis on the striking contrasts presented by the assemblage. Rather his strife was to show how much of good was held in common by the followers of all faiths and creeds." The delegates "went away (in the words of Dr. Peabody) filled with a livelier appreciation of the nationalities with which they had mingled, a higher respect for those living in other climes, a kinder affection for all as sons of the same Divine Father, a recognition that in a certain large sense they had been promoted to citizenship of the world. Who shall estimate the influence, near or remote, of these lessons in smoothing the asperities that arise between nations, in developing the hope of universal peace, founded on brotherly affection, and the substitution of reasonable concession for the arbitrament of war." Quoting again from Mr. Higinbotham's address, he said in closing, "Let me repeat the statement concerning the great Exposition, that its best work, its highest achievement, that which will longest endure and shed the richest blessings upon mankind, is the Parliament of Religions."

DR. PEABODY'S COMMENTS

In his review of the Exposition given in the final chapter of the History of the Exposition, Dr. Peabody says, "No great exposition could present fully the exponents of the higher forms of human progress if it made no provision for the intellectual and spiritual phase, and this phase, like every other, will submit only to methods of presentation proper to itself. The spiritual can only be spiritually discerned. To this end an organization was provided bearing the modest title, The World's Congress Auxiliary. Its significant motto was: 'Not things, but men; not matter, but mind.' From the opening of the Exposition until the close thereof the Auxiliary maintained many series of assemblages, often concurrent, each a practical exposition of advanced thought in some definite and important field. The spirit of high endeavor that pervaded these spiritual exhibits emulated the elevated

standards that ruled the material collections; they were intended to show the furthest progress made in each specific field of research. These Congresses were attended by men of eminence, attracted from all parts of the world, and national lines of differentiation were most wisely erased. . . .

"For the first time, representatives of all the great creeds exchanged cordial greetings and discussed in friendly spirit, from the same platform, the cardinal doctrines of their respective beliefs. It did not follow that many, or any, went away convinced of material error; but all, as they departed, bore away to their homes, some of them antipodal, a larger respect for each other's honesty and integrity, a surer bond of sympathy in their common desire to banish evil passions from the human soul, and an abiding faith in the brotherhood of man, the offspring of the ever-living God."

A DISTINGUISHED PRELATE'S OPINION OF THE FAIR

Cardinal Gibbons made an address at one of the sessions of the World's Congresses, in which he paid this high compliment to the Fair. "What an inspiring and consoling spectacle is this," he said. "Whether I consider the magnitude of your numbers or your representative character—for you represent almost every state and diocese and city of the Union,—or whether I contemplate the intelligence that beams on your faces, I cannot but exclaim: this is a sight well calculated to bring joy and gladness to the hearts of American Catholics. During the past four months millions of visitors have come from all parts of the United States, nay from every quarter of the globe, to contemplate, on the Exposition grounds, the wonderful works of man. They know not which to admire more, the colossal dimensions of the buildings, or their architectural beauty, or the treasures of art which they contain. The caskets and the gems were well worthy of the Nineteenth century, worthy of the nations that brought them, worthy of the indomitable spirit of Chicago. Let us no longer call Chicago the windy city, but the city of lofty aspirations. Let me christen her with another name; let me call her Thaumatopolis, the city of wonders, the city of miracles."

The Archbishop of Greece, in the beginning of his address at one of the gatherings, after being introduced by Mrs. Potter Palmer, spoke of the impressions he received while in this country, as follows: "I have ascended the pulpits of my church perhaps more than one thousand times, but in ascending this platform at the World's Columbian Exposition I feel myself especially honored. I feel very glad because everywhere I go I meet the spirit of the greatness of my ancestors of the old Greece. I have been in the city of Washington, and having before me the buildings of the city, I thought I was in old Athens. Here in Chicago, when I come within the precincts of the Columbian Exposition, I think I am in Olympia. When I have before me these buildings, and all these exhibitions of art, I think I am in the Acropolis before the Parthenon."

THE SUNDAY CLOSING QUESTION

There was no single problem of the administration that caused as much trouble and perplexity and aroused so much controversy as the question of opening or closing the gates of the Exposition on Sundays. On one side of the question were

arrayed those who for religious reasons demanded that the gates should be closed on Sundays. "On the other side," says the History, "were those who urged that the Exposition, a great moral and educative power, should be permitted to exert its benign influence on one day as well as another; to grant its blessings to the toiling multitudes who might otherwise be debarred from them."

The trouble originated at the time of the passage by Congress, on August 5th, 1892, of the act to provide the Exposition with $2,500,000 in the form of souvenir coins, coupled with the condition that it should be closed to the public on Sundays. "This provision," says the History, "was of necessity accepted by the Board of Directors, the members of which felt that they had done all that the situation required of them to secure the opening of the Exposition on Sunday, unless Congress could be induced, at its next session in the winter of 1892-3, to release them from the condition attaching to the souvenir coin appropriation. Congress failed to revoke this condition, but in the spring of 1893, it passed an act which the Board of Directors held released them from the obligation that had been imposed. This act, approved March 3d, provided for the withdrawal of the sum of $570,880 from the appropriation of $2,500,000 previously made, and required that the sum so withdrawn should be set aside for the use of another body and for a different purpose." This refers to the expenses to be incurred by the Commission for the "Awards," spoken of previously.

"Many persons within the Directory and without," continues the History, "held the opinion that as the appropriation was coupled with a condition, and the acceptance thereof of the Directory included the condition, the two actions constituted a mutual obligation having the moral force of a contract; and that the act of March 3d, 1893, withdrawing a part of the money previously appropriated, violated the contract and freed the other contracting party, the Exposition Directory, from whatever obligations that contract had imposed."

On the 7th of May, the first Sunday of the Exposition, the gates were closed, and also on the following Sunday; but on the 17th the Directory voted to open the Exposition on Sundays as well as week days. The operation of the machinery in Machinery Hall, however, was to be suspended so far as practicable, exhibitors and employes to be relieved from duty except so far as their presence was necessary to protect property and preserve the peace, and religious services were to be provided in Choral and Music Halls. Accordingly, on Sunday the 28th of May, the Exposition was opened to visitors, on which day the paid attendance was over seventy-seven thousand, nearly twice the average daily attendance of the previous six days. Thousands went on that day simply to record their sympathy with the action of the Directors; and until the middle of July the Sunday attendance continued at a high figure, the visitors being made up mostly of those who seemed to be regardless of whether or not the exhibits were covered or the machinery in operation, provided they could enjoy the charming views of landscape and architecture, and listen to the music.

Sunday visitors found the exhibits mostly covered up and the attendants absent, the main attractions being the rare and beautiful buildings, and the lovely landscape. The Art Building, with its treasures, however, remained open on that day, and it was continuously thronged. The eagerness to behold the contents of this building was one of the most agreeable features of the Sunday attendance.

Persons who observed the Sunday crowds, and studied the individuals that composed them, found it difficult to appreciate the objections that were urged by those opposed to the opening of the gates of the Exposition on Sundays.

It has come to be recognized by all the friends and advocates of the "American Sabbath," as well as other liberal minded people, that the art galleries, libraries and parks fulfill their purposes most completely on the Sabbath day, a day of rest and change from the occupations and cares of everyday life. Rest is the central idea of the Sabbath day, the meaning of the word in Hebrew being "a day of rest." The Master himself reproached the Pharisees for the stress they laid on a mere external strictness in observing the Sabbath without corresponding purity of heart and life. The people who resorted to the Exposition on Sundays were in general observing the Sabbath day in its truest and best sense, and it is passing strange that unthinking zealots should have so perverted the manifest intentions of the management of the Fair in their endeavors to provide for the wants of strangers in the city, who were drawn thither by the great attractions offered by the Exposition. This restriction greatly embarrassed the managers in their well meant efforts to supply every reasonable demand upon them in the way of profitable entertainment and instruction.

THE COURSE OF THE BOARD OF DIRECTORS

The Board of Directors was charged with bad faith because it opened the gates on Sunday after accepting the souvenir coin appropriation of $2,500,000 with the condition that it would keep the gates closed on that day," says President Higinbotham in his Report. "Those making the charge ignored, or forgot, the fact that the first breach of contract was on the part of the Government, and that, too, under such embarrassing circumstances, as to seriously damage the Exposition's finances. Nothing but the loyalty and public spirit of Chicagoans saved the Exposition from irreparable disaster before its gates had been opened to the public. Attached to the appropriation of $2,500,000 were several conditions of great importance, all of which the Company had fulfilled.

"The first Act of Congress providing for the Exposition required the company to raise ten millions of dollars for use in preparing for holding the Exposition. This had been done. The souvenir coin act required the company to provide whatever sum might be necessary in addition to the two and a half millions thereby appropriated, to complete the Exposition, the total cost of which, at that time, was expected to be about nineteen millions of dollars, but which afterward proved to be much greater. The company was even required to prove to the Secretary of the Treasury that it had actually disbursed two and a half millions of dollars, in addition to the original ten millions of dollars, before it could receive the two and a half millions of dollars in souvenir coins from the government. After this condition had been complied with, Congress diverted $570,880 of the souvenir coin appropriation to other purposes not within the scope of the duties of the company. The imposition of the task of replacing the sum so diverted nearly ruined the company.

"Moreover, upon the credit established by the plain terms of the souvenir coin appropriation, and the other resources of the company, an issue of five millions

in bonds had been authorized by the board of directors, and nearly four and a half millions of them sold and paid for. By this act of the government the security of the bondholders was injured to a much greater amount than the amount of money withheld; in fact, the security of the bondholders, resting in the solvency of the company, was in danger of being totally destroyed.

"Another condition of the souvenir coin appropriation was that the company would pay the expenses of the great exhibit departments organized by the director-general of the World's Columbian Commission, which expenses constituted a heavy drain upon the company's resources, amounting in the aggregate to more than the entire souvenir coin appropriation. Thus it will be seen that, so far from there being any obligation, moral or legal, for the return of any moneys received from the government, there was a debt due the company from the government, morally if not legally, for moneys expended in excess of the total requirements imposed by the original act of congress relating to the exposition."

SUNDAY CLOSING IN THE COURTS

The matter reached the courts in the form of injunctions issued by different judges, one by petition of a stockholder of the exposition restraining the management from closing the gates, and another, inspired by parties in favor of Sunday closing, compelling the management to keep the gates closed on Sundays. After a series of complicated proceedings, the case was presented for decision before the United States Circuit Court, where it was fully argued before Judges William A. Woods, James H. Jenkins, and Peter S. Grosscup. On the 8th of June, the majority of the judges decided that the exposition must be closed on Sundays, Judge Grosscup dissenting, however. An appeal was taken and the case was again argued before Chief Justice Melville W. Fuller, and District Judges William J. Allen, and Romanzo Bunn. The order of the lower court was reversed and the case remanded, but it was soon afterwards dismissed. The exposition thereafter remained open on Sundays, except one Sunday in the latter party of July, until the end of the period.

"The entire agitation of this subject," says the History, "was a unique and disagreeable experience. Men of the best intentions, and aiming only to do right, according to their views, were accused of being enemies of society and religion, and were thundered at from many pulpits, often intemperately."

CHAPTER XLV

NOTEWORTHY ATTRACTIONS OF THE WORLD'S FAIR

GENERAL VIEW OF THE EXHIBITS—SILVER AND PORCELAIN OBJECTS—DIAMONDS AND GEMS—THE CARAVELS SENT FROM SPAIN—THE VIKING SHIP FROM NORWAY—THE OLD WHALER "PROGRESS"—FULL-SIZED MODEL OF BATTLESHIP "ILLINOIS"—MODEL OF BRITISH WARSHIP "VICTORIA"—GREAT NUMBER OF OTHER MODELS—BIG THINGS ON EXHIBITION—SECTION OF RIG TREE FROM CALIFORNIA—GREAT GUNS FROM THE KRUPP FACTORY—METHODS OF TRANSPORTING AND HANDLING THE GUNS—LOCOMOTIVES AND CARS—COMPLETE TRAIN OF CARS WITH ENGINE ON EXHIBITION—FLAG STAFF OVER TWO HUNDRED FEET IN HEIGHT—SILVER STATUES—PUBLISHERS' EXHIBITS—MODEL LIBRARY OF FIVE THOUSAND VOLUMES—THE MIDWAY PLAISANCE—ATTRACTIONS DESCRIBED—THE FERRIS WHEEL—LATER FORTUNES OF THE GREAT WHEEL—CONCESSIONS AND PRIVILEGES—STATUE OF COLUMBUS ON THE LAKE FRONT—SPECIAL DAYS AT THE FAIR—CHICAGO DAY—TOTAL ATTENDANCE AND RECEIPTS OF THE FAIR—COMMENTS OF VISITORS—OPINIONS AND IMPRESSIONS.

GENERAL REMARKS ON THE EXHIBITS

IT is not intended that a full description of what was to be seen at the great exposition shall be given here. The effort will be to mention some of those that seem to be typical of the immense concourse of exhibits there assembled. It has been estimated that the sum total of the value of the buildings and exhibits at the exposition closely approximated one hundred millions of dollars. The task of enumerating the articles exhibited was undertaken by the various departments, and the results were shown in a series of official catalogues which can be found in the libraries and profitably consulted by persons interested. In this place we shall confine the descriptions to a comparatively few subjects, embracing such as are deemed of interest to the general reader, although some of them have already been referred to. Such subjects as have been chosen are those which have been selected to enable a reader who did not see the exposition to form a fair idea of its size and importance, as well as to recall some of its notable features to those who attended it and who will take pleasure in the remembrance of the wonderful displays there witnessed.

There will be many features recalled by former visitors to the exposition, of which they will find no mention here, simply for the reason that in the multitude of buildings and articles exhibited a few only can be either described or even referred to.

EXHIBITS IN THE MANUFACTURES BUILDING

It is possible to mention here only a few among the countless thousands of objects exhibited in the Manufactures building. Perhaps the most attractive of

any, judging by the interest shown, were the displays of jewelry, precious stones and ceramics.

England, Italy, France, Spain, Germany, Russia and Japan sent exhibits of priceless value. "The liberality with which the most distinguished men of the [German] Empire," . . . says a writer, "have lent their priceless articles for exhibition here is merely part of the generous and magnanimous policy which Germany has displayed in her whole connection with the Fair." But the triumphs of this branch of the arts were to be found in the American exhibits. Among these there were superb examples of inlaying; the great magnolia enameled vases in the Tiffany exhibit, and bowls etched in damascene work, were original work in the silversmith's art; and in the exhibits of cut glass the Americans were especially prominent.

The Russian exhibits of jade, of bronzes, lapis lazuli and jasper, were especially remarkable. In front of the French court stood two immense Sevres vases, and within were some two thousand specimens of the Sevres works. The English also had a magnificent group of exhibits, the product of their potteries. Denmark and the Netherlands were represented by wares in blue and white, panels, tiles and other articles. The American potteries also had fine exhibits. Japan exhibited an immense quantity of enamels, a pair of vases nine feet high being among the largest pieces of enamel work ever produced. Austria's exhibit of glass artistically treated was truly wonderful, including the Bohemian glass productions, famous for ages.

THE WATCHES OF SWITZERLAND

The watches of Switzerland were not the least among the manifold attractions. Interest here was unflagging, the visitors always thronging the booths where they were displayed. Watches in endless varieties, their works, their cases, pendents and chains, were shown, as well as watches of ancient make placed as a historical background to the industry of watchmaking. As an example of these among others was an oval watch, centuries old, actuated by the "fusee and string" method, which could be wound up and would keep time, ticking as loud as the chirp of a cricket. An ancient specimen was called the "Nuremberg Egg" by reason of its shape, which sounded like a coffee mill while being wound up. There were watches set in diamonds and some in pearls, watches which would play airs like a music box, striking watches, and watches with wooden works like Connecticut clocks of the olden time.

The enamels, porcelain, decorated ware, stained glass and similar articles were in fairly bewildering variety, among them vases of towering size and of great artistic value. Large purchases were made among these rare treasures for the Field Columbian Museum, which through the munificence of Mr. Marshall Field was formed at the time.

The booths in which these treasures were displayed were themselves built on a liberal scale, but in this great enclosure there was vast space between their tops and the roof of the building. For constructions of those kinds placed under a sheltering roof, the design and ornamentation could be carried to a degree of detail not permitted in buildings placed in the open air. Some of them were

provided with serviceable roofs of canvas to protect their contents, as it was soon found by experience that the lofty roof of the Manufactures Building was by no means waterproof.

DIAMONDS AND GEMS

Commissioner Ludwig Wiener from the Cape of Good Hope, on behalf of the great Diamond mining companies in South Africa, sent to the Exposition, and had installed in the Mines and Mining Building, an exhibit of the diamond mines in that region. A quantity of clay and rock in which the rough diamonds are found, together with the machinery for separating them from their natural resting places, was brought. A hundred and fifty tons of diamondiferous earth and rock had been imported, and an entire washing plant set in operation, worked by several Kaffir miners, who accompanied the exhibit from Africa. The stones that were found were passed over into another department, instituted with the aid of Messrs. Tiffany & Company, whose diamond cutters and polishers were at work with their wheels, shaping the gems into brilliants. Ten thousand carats of uncut diamonds were shown in the exhibit.

Mr. Frederick J. V. Skiff, chief of the Mines and Mining department, was so fortunate as to discover a rough diamond at the first inspection of the ore, after it was brought to the building. The Commissioner, who stood by him, said at once that it was a diamond of the first water, and at the same time he presented it to the chief. He also thanked Mr. Skiff for the great assistance he had given the exhibitors in installing and arranging their exhibit, and begged that he would accept the stone, being the first one ever taken from its native ore in Chicago. It was a beautiful white gem, and when cut and polished, it was estimated that it would weigh about four carats.

A glass case in one corner of the pavilion was continuously a center of attraction and fascinated visitors crowded about it and gazed upon the treasures within. In this case were uncut diamonds roughly valued at $750,000. Thus the public were shown the history of the diamond, from the time it is taken from the mine in its crude form until it arrives at its finished state.

THE CARAVELS OF COLUMBUS

The caravels seen at the Exposition were built by the Spanish government, as nearly as possible in the exact form and size of the three vessels which formed the little fleet of Columbus, which crossed the ocean on his voyage of discovery. They bore the names of the original ships, the Santa Maria, the Nina, and the Pinta. These vessels were designed by the naval architects from descriptions and old prints of the original ships. They were built at Barcelona, Spain, a Mediterranean port; and brought around to Cadiz on the Atlantic coast, where they were prepared for the voyage to America. There was some fear that they could not make the passage safely, and they were therefore convoyed by the United States cruiser Newark, following the ancient course through the Sargasso Sea. The little fleet finally sighted Watling's Island, the famous "landfall" of Columbus, and soon after reached Havana. Their first appearance in the United States was at the naval review in Hampton Roads, and they participated in the ceremonies

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TWO OF THE CARAVELS, THE NINA AND THE PINTA

there. They were then towed up the Atlantic coast to the mouth of the St. Lawrence, up that river to Lake Ontario, through the Welland Canal, through the Detroit and St. Clair Rivers, and past the Straits of Mackinac to Chicago, where they arrived early in July, 1893. They were stationed in the lagoon near the Convent of La Rabida, where they remained during the Exposition.

Within the admiral's cabin of the Santa Maria the visitor might have seen the reproductions of the original furnishings, the bed on which Columbus slept, the table on which he wrote, his armor hanging on the walls, and the arms, such as cutlasses, pikes, and shields, characteristic of the time. The caravels, together with the exhibits made by the Spanish people and government, and the building in which their exhibits were housed, were presented to the United States by Spain, thus manifesting a liberal and generous spirit on the part of that nation which was so soon to be followed by the rude blasts of war, in strange contrast with these peaceful and humane activities. The caravels attracted great interest, and after the Exposition they were allowed to remain, and may still be seen in the lagoon at Jackson Park.

There was also the Viking ship, a reproduction of the strange craft in which Leif Erikson sailed, in the year 1000, on a voyage from Norway, when, it is believed by many, he landed on the coast of New England. The Viking ship was seventy-five feet long, fifteen feet in extreme breadth, and six feet in depth. It was provided with sixteen long oars, and also with a mast which carried a sail, by means of which its crew sailed her across the Atlantic from Norway along the track followed by Leif of old. There was a fleet of Venetian gondolas on the lagoons which were fully and profitably employed by the gondoliers who had been brought from Venice to man them.

A service of electric launches was installed on the lagoons and proved to be a most successful means of communication between the points of the grounds reached by them. They carried about a million of passengers during the Fair without a single accident occurring. These boats could pass out into the lake both from the Grand Basin and from the north end of the lagoons, so that visitors could obtain a view of the Exposition from the lake.

THE WHALING SHIP, "PROGRESS"

There came to the Fair as a curiosity of great interest a real whaling ship which bore the name of "Progress." It was sent from New Bedford, Massachusetts. It had a history of actual service in many seas, but had outlived its usefulness as a whaler. It was brought through the chain of lakes, and lay at anchor in the lagoon near the caravels. In its hold had been arranged an interesting exhibit which attracted many visitors. The old ship had the misfortune of being sunk by a scow in the Chicago River after its arrival at that point, but was raised and in due time was installed as one of the attractions. It finally became the prey of the junk dealers.

THE BATTLE SHIP, "ILLINOIS"

A model of a battle ship was erected in Lake Michigan at a little distance from the shore on the same scale as to size as the real ships of the navy. It was built

on a substantial foundation of piling. The sides were of brick covered with cement. It was three hundred and forty-eight feet in length, sixty-nine-feet in breadth, and armed with regular service guns, except the thirteen-inch and eight-inch guns which were "dummies," or what used to be called in Civil war times "Quaker guns." Access to the ship was obtained by means of a pier against which it was apparently moored. The fittings within were the same as those of a ship in the navy, except that no machinery was installed. In this structure the United States Navy Department placed the principal part of its exhibit.

MODELS OF SHIPS

A collection of models of a great variety of ships was shown in the Transportation Building, and included among them were many of the latest forms of war ships. One of these models was that of the "Victoria," a British iron-clad of the first class. Most of the models were complete in form, and with every external detail worked out to perfection. The model of the Victoria was made so that one half of it, lengthwise, was placed against a mirror, and thus its entire form was brought into view. This model was some thirty-five feet in length, and was considered the most attractive of them all. While the Fair was in progress, news came that the war ship Victoria had been sunk in the Mediterranean while at practice, in collision with another ship of the fleet, and that several hundred men had been drowned. This event gave an added and sorrowful interest to the model, which was draped with mourning emblems during the remaining period of the Fair.

"BIG THINGS" ON EXHIBITION

The "bigness of things" in nature was well represented in the Forestry Building by a huge log of mahogany wood, twenty-four feet long and four feet square, one side polished to show the grain; two bamboo stalks seventy-five feet in length, a plank from a Washington redwood tree sixteen feet in width, a half section of a Sequoia tree from California, and a section of a grape-vine stalk from Missouri a foot in diameter. The flagstaff in front of the Washington State building was composed of the trunk of a giant Puget Sound fir tree which it had been found necessary to cut into two parts to permit of its transportation, and spliced together after its arrival. This flagstaff was the tallest ever erected, its total length being two hundred and thirty-eight feet, with a diameter at the base of only thirty-two inches, and weighing thirty-one tons. Some twenty-five feet of its length was buried in the earth. It was quite an engineering feat to raise this huge mast, the derrick employed for the purpose being one hundred and twenty feet in height, with guy ropes running in all directions.

In the Government Building was seen a section of one of the monarchs of the forest from the Pacific coast. This section was thirty feet in length and twenty-six feet in diameter. There were logs in the Washington State building, the first story of which was constructed log-house fashion, of yellow fir over one hundred and twenty-five feet long, one of which was said to have been cut from a tree which stood three hundred and fifty feet in height.

From the State of Washington, also, was sent the largest single block of coal

on exhibition, weighing twenty-five tons. Pennsylvania sent an "anthracite obelisk," sixty-two feet in height. A "cob of cannel coal" from England, weighing nearly twelve English tons, was one of the natural wonders shown.

Some of the artificial "big things" may be mentioned. One was the model of the great steam hammer of the Bethlehem Iron Works. This was a full-sized model, the original of which was said to be the largest in the world, and weighed nearly twenty-four hundred tons. It was shaped like a letter A, its highest point standing ninety feet in the air. The United States government sent to the Exposition a mammoth gun built for coast defense purposes. Its calibre was twelve inches, its length thirty-three and a half feet, and its weight fifty-eight tons. It was capable of throwing a projectile of one thousand pounds in weight a distance of eleven miles. The tube for the great telescope intended for the Yerkes Observatory, then under construction at Williams Bay, Lake Geneva, was mounted in a prominent place in the Manufactures Building. The tube was of steel, sixty-four feet long, and four feet in diameter, but without the great object glass which had not yet been finished. The driving clock was attached to the mechanism, and the giant tube was made to point in different directions at the will of the operator.

Other big things on exhibition were a monstrous cheese from Canada weighing twenty-two thousand pounds; and a structure built of chocolate cakes, piled like bricks, in which there were thirty thousand pounds of that article.

THE EXHIBITS OF GREAT GUNS BY THE KRUPPS

The most powerful engines of war made by man are undoubtedly the guns made by the Krupps of Germany. There was a large collection of guns at the Exposition sent by the Krupps, and shown in a building especially constructed by them, because space for their proper display could not be obtained for them elsewhere. This building was situated near the Convent of La Rabida, and was nearly two hundred feet in length by eighty-two feet in width. It was designed and manufactured in Germany and put together upon its arrival at the Fair grounds. The Krupp exhibit was, perhaps, the most elaborate and expensive one at the Exposition. The German Commissioner, Herr Wermuth, stated in an address at the opening of the exhibit that its cost was three millions of dollars, one half of which sum would be required in transporting it to this country and back again to Germany.

The largest gun in the exhibit was a monster which measured forty-six feet in length, six and one-half feet in diameter at its thickest part, with trunnions two feet in diameter, and with a calibre of sixteen and a half inches. Its weight was one hundred and twenty-two tons. It was said to have a range of sixteen miles, and capable of throwing projectiles of over a ton in weight. The gun was brought from Baltimore, where it was landed, over the Baltimore & Ohio and the Pennsylvania Railroads, carried on two specially constructed flat cars each having sixteen wheels. It was placed on a heavy bridge truss resting on pivots at each end, and these in turn on the cars. When it was landed at Baltimore, a hoisting apparatus one hundred and twenty feet in height, built by the Krupps and sent over with the gun, was made use of in handling it. The gun and cars on which it was carried together weighed two hundred and thirty tons.

The cars, cranes and hoisting apparatus used were afterwards placed in the Transportation Building as exhibits. There were in addition a great number of other guns in many shapes and sizes, all, including the great gun, being appropriately mounted, and their workings shown to visitors. It was remarkable to an observer how completely and easily these heavy pieces of ordnance were controlled by their operators. The muzzles were elevated or depressed, the guns themselves swung from side to side, and the breech-loading devices opened and closed with the greatest ease. After the Commissioner had concluded his address at the opening, a signal was given and all the guns were made to bow in unison to the great amusement and delight of the spectators.

OTHER KRUPP EXHIBITS

But the Krupp establishment is not exclusively occupied with the construction of weapons of warfare. While the central part of the building was filled with terrible engines of war, the spaces at the sides and ends were devoted to the exhibition of shafting, screws, rudders, bow and stern frames for great ocean ships, made of steel and other metals. A plate of steel rolled out to a thickness of an inch and a quarter was sixty-five feet long and weighed sixteen tons. A steamer shaft was ninety feet long and in places four feet in diameter, and weighed over one hundred tons. As one who described it said, "it looked strong enough for the axis of the earth."

LOCOMOTIVES AND ROLLING STOCK

The exhibits of locomotive engines and cars, in and near the Transportation Building, was an exceedingly interesting one, both from the historical and modern standpoints. The Pennsylvania Railroad Company was represented by a comprehensive collection of originals and models, one of the former being the famous locomotive "John Bull," which began to run on the Camden & Amboy Railroad, sixty-two years before. It came to Chicago under its own steam, with two equally antiquated passenger coaches drawn by it, occupying five days for the journey. Faithful reproductions were shown of eight locomotives that had seen service in this country between 1825 and 1848, with models of passenger and freight cars of the same period. A big frame contained the seals of two hundred and eighteen corporations which had been consolidated with the Pennsylvania system since 1846.

The Baltimore & Ohio Railroad had full sized working models of the rolling stock used by that line in the early thirties. One of the quaint old engines on view had the old fashioned walking beam device mounted upon it. Every form which the locomotive had assumed in its various changes was here represented, until the engines of the latest pattern closed the long series. The New York Central Railway had on exhibition the "DeWitt Clinton," the first engine used on that road in 1831, with its coaches of corresponding antiquity. This exhibit contained a train of splendid modern cars with engine attached, standing in close proximity to the early forms of rolling stock, the contrast being very striking. The Chicago & North-Western Railway's contribution was the old engine known as the "Pioneer," built by the Baldwins in 1836, and well known in Chicago in the fifties.

SILVER STATUES AT THE FAIR

The famous French sculptor of the Statue of Liberty at New York, Bartholdi was the designer of a statue of Columbus cast in pure silver metal. The exterior was finished with an oxidized surface, to give better expression to light and shade effects than could have been produced under a high polish. The statue was a little more than life size and required thirty thousand ounces of silver to fill the moulds. It was placed in the Manufactures Building near the central clock tower, as a part of the exhibit of the Gorham Silver Company. The statue as a work of art was highly spoken of, and by some was thought to be one of the best of Bartholdi's works.

A statue of "Justice" in the Montana section of the Mines Building was said to contain sixty-four thousand ounces of silver. The polished surface of this statue somewhat lessened its artistic effect. It was modeled by R. H. Park, was five feet and ten inches in height, and rested on a pedestal cast in pure gold valued at $250,000; the bullion for which was loaned by one of the great mining companies of Montana. Miss Ada Rehan, the actress, posed for this statue, which bore a close likeness to the original. "The features are those of Rehan," wrote a reporter of one of the newspapers, "but the smile of the artless Rosalind is missing: in its place is an austere expression, more befitting the face of Justice."

BOOK PUBLISHERS AND LIBRARIES

Among the exhibits in the Liberal Arts sections were the publishing and illustration of books in all stages of their preparation, from the manuscript of the author and the sketch of the illustrator to the finished volume. All the great publishing firms and companies made displays of their productions in most attractive arrangements. Rare books in fine bindings, editions de luxe, books of mammoth size, minute volumes brilliantly bound and glittering like jewels, and books centuries old, furnished delight to the lovers of books and book collectors. In the booth of the Century Company was shown the evolution of a dictionary, through all the stages that the Century Dictionary had to pass. The French exhibit of literature consisted of a display of the publications of some sixty firms and individuals, about two thousand volumes in all. Book binding in its most artistic form was naturally to be found in the French exhibit.

But the most extensive exhibit of literature was that of the German publishers in the German Building, in which three hundred and thirty-three firms took part. The Tauchnitz exhibit alone contained upwards of two thousand volumes.

Chicago publishers were also well represented in this department. Messrs. A. C. McClurg & Co., F. H. Revell & Co., Rand McNally & Co. and others made interesting displays. Chicago's veteran bookbinder, Mr. P. Ringer, had beautiful examples of his work, among them a copy of a miniature Horace printed in diamond type and bound in full blue morocco, a gem of beauty.

A MODEL PUBLIC LIBRARY

In the Government Building was installed a model library consisting of five thousand, two hundred and thirty volumes. This collection was installed under the

joint auspices of the Government Bureau of Education and the American Library Association. Incident to this exhibit there was issued an official catalogue prepared by the latter body, concerning which Mr. W. T. Harris, United States Commissioner of Education, said in his letter of transmittal: "Our people are justly proud of the American Library Association which, by its zeal and practical energy, has done so much to devise means for the successful management of libraries. This Association has given its time and assisted this office with money to procure and install a model library of five thousand volumes, which forms a part of the exhibit of the Bureau of Education at the Columbian Exposition." The printed catalogue was designed to be of practical service to librarians in the selection and purchase of books, and in classification and cataloguing. The catalogue was issued as a government publication, and in later years it was extended to a catalogue of eight thousand volumes under the editorship of Mr. Melvil Dewey, of the New York State library, and again, in 1904, was published by the government, and has become an indispensable manual in the hands of librarians.

In 1908, the American Library Association established its headquarters at Chicago, and occupies rooms in the building of the Chicago Public Library.

MIDWAY PLAISANCE ATTRACTIONS

The Midway Plaisance was mostly given up to attractions managed by concessionaires. It was a notable feature of the World's Fair, and a potent influence in drawing visitors. The narrow strip of territory connecting Jackson Park with Washington Park, appropriately named the Midway, is nearly a mile long and six hundred feet wide, and is a part of the park system; the three divisions, Jackson Park, Washington Park, and the Midway Plaisance being known under the general name and title of the South Park, controlled by the South Park Commissioners. The Midway offered an admirable location for picturesque displays characteristic of the customs of foreign and remote nations, aboriginal and half-civilized tribes; and for various forms of amusement, refreshment, comfort, and rest. It gave an opportunity for isolating special features which would not harmonize well with the more dignified buildings and exhibits in the main part of the Exposition grounds.

Along the broad avenue, running through its center, were ranged a great variety of attractions. Among them may be mentioned the Streets of Cairo, the German Village, the Japanese Bazaar, the Hagenbeck Animal Show, the Panorama of the Alps, the Dahomey Village, Indian Village, Javanese Village, Irish Village, Beauty Show, Captive Balloon, Ferris Wheel, Old Vienna, Chinese Theatre, Moorish Palace, Temple of Luxor, Tunisian Bazaar, and many others.

SCENES ALONG THE MIDWAY

A correspondent of a New York newspaper wrote entertainingly of the Midway. "It is probable," he says, "that the average visitor to the World's Fair, when he has said all that he can say of its beauties and of the pleasures he had there, will confess that, after all, he had more fun in the Midway Plaisance than anywhere else. Of course, like all the rest of the Fair, it is educational and instructive, but the object is simply to amuse. Of all its forty-one separate

shows, there is not one that is dull, and several are so amusing that people visit them again and again without getting tired of them. It is idle to make comparisons between this exhibition and similar exhibitions at other international fairs, and it may be that at Paris three years ago there was all or nearly all that there is in the Midway Plaisance; but this does not alter the fact that there never was anything like it, and that the visitor who does not enjoy it must be phlegmatic indeed."

Starting at the head of the street which leads through the center one saw a strange scene. "On your left hand," continues the correspondent, "a gray castle rises, from the turret of which floats a large green flag which bears an inscription saying that it is the Irish Village, showing the Irish cottage industries; and looking farther down you see a small New England loghouse and schoolhouse. Across the road from this is a model Philadelphia workingman's house, and next to this a big building for a theatre, and you see more similar structures until the architecture passes into Asiatic forms." Here one sees the Japanese bazaar, the Javanese village, Turkish buildings where the mosques and minarets tower above, the Streets of Cairo, an Egyptian temple, and the Moorish palace.

In passing one sees an imposing cluster of old Vienna buildings, the picturesque German village, the Ferris wheel, a striking object, the Dahomey natives in their rude huts, Laplanders with reindeer, Bedouin Arabs, and red Indians from the plains.

The cosmopolitan character of the throngs on the Midway was especially noticeable. "Here you may see a high-caste Turk, gorgeously arrayed in bagging trousers, and there you will encounter a South Sea Islander, who walks along clad in a simple pair of short trousers and nothing else. Then you meet a Bedouin Arab wrapped in folds of white cloth, and next to him a little fellow from Java with a large white turban on his head. Add to these German cavalrymen in uniform, Irish peasant girls, with Chinese and Japanese and a number of others, and you will have some faint idea of what the crowd in the Midway Plaisance looks like." It was a place, as another writer said, where a man, if so inclined, "could have a fight in forty languages."

At the Irish village, there was a reproduction of the famous Blarney castle, over which the Duchess of Aberdeen presided, one of the most tireless workers in making it a success. When it was opened she and the Earl made addresses, and by their efforts won a large patronage. Near the Irish village was the Beauty Show, consisting of fifteen or twenty young women dressed up in the costumes of different nations. "Whether or not they are pretty," says the correspondent, "is a matter of taste, and at all events a visitor can find hundreds of prettier ones to see in the grounds without paying for the pleasure."

The next big exhibit was Hagenbeck's Menagerie. Here were some marvelous performances of wild beasts with their trainers. Lions, leopards, elephants, tigers and bears were shown in a great variety of performances and tricks seemingly impossible to wild creatures. Beyond this was the German village, the central building of which was a medieval stronghold surrounded by a moat. In this village was a succession of concerts given by two excellent German military bands, and a large restaurant fitted up on a liberal scale within the buildings. At the place called "Old Vienna" was a collection of thirty-six houses of the original

size existing in Vienna a century and a half ago. This was one of the most interesting exhibits on the Midway, and, like the German village, was provided with a good band and a large restaurant.

At the Chinese theatre an endless Chinese play was proceeding, and near it was a company of sixty-nine Dahomey natives living in their village, having also a band of music consisting of primitive drums, upon which they pounded incessantly. Among the Dahomey natives were twenty-one women said to be "Amazon warriors," looking fierce and warlike indeed, but understood to be quite harmless. There were also an Algerian theatre, a model of St. Peter's church at Rome, the captive balloon, the Moorish palace, and a variety of panoramas.

Eugene Field took note of the Midway, which interested him hugely. He wrote many humorous verses about the World's Fair, and the attractions on the Midway, a few lines of which are given:

"The Moors, the Turks, wild men with dirks,
Here show their customs curious;
The Japanese, and folk like these
Wear knives that are injurious.
Here are balloons and foreign tunes,
That skirl both fast and furious;
And Cairo folk as brown as oak,
And Zulus true or spurious."

THE FERRIS WHEEL

One of the engineering wonders of the World's Fair was the Ferris Wheel, named in honor of its designer, Mr. G. W. G. Ferris, a Pittsburgh engineer. The wheel was in process of construction for twelve months before it began revolving in its place on the Midway Plaisance. "It was a kind of gigantic merry-go-round," as one writer expressed it, only that it revolved vertically rather than laterally. It was composed of two great rims, each two hundred and fifty feet in diameter, placed thirty feet apart with proper bracing between them. Between the rims were swung thirty-six cars, each capable of holding forty passengers. The impression it gave the beholder was that of an enormous bicycle wheel, with its maze of rods and trusses.

The swinging cars resembled ordinary street cars, each one suspended by a steel axle six and a half inches in diameter. The structure itself was suspended on an axle thirty-two inches in diameter, resting upon two steel towers one hundred and fifty feet high. There was a space of fourteen feet between the ground and the lower periphery of the wheel, where the engine of one thousand horse power was placed which controlled its motions. The entire height of the structure was therefore two hundred and sixty-four feet, and its total weight was about eleven hundred tons. Its cost was said to have been three hundred thousand dollars.

Around the entire periphery of the wheel there were two rows of cogs, six inches deep and eighteen inches apart, and engaged with them were two sprocket wheels nine feet in diameter, these being directly controlled by the engineer. Near

By courtesy of D. Appleton & Co.

THE CAPTIVE BALLOON ON THE MIDWAY PLAISANCE

By courtesy of D. Appleton & Co.

THE FERRIS WHEEL ON THE MIDWAY PLAISANCE

By courtesy of D. Appleton & Co.

THE MARINE CAFE

these sprocket wheels were placed two wheels slightly larger, with air-brake attachments, intended to stop the motion of the great wheel if the engine should fail to control it.

The Ferris Wheel was not ready for service until seven weeks after the opening of the Fair, owing to unavoidable delays in completing it. Its unusual form and its manner of construction as well as its enormous size involved many and intricate engineering problems not previously encountered, nothing like it ever before having been constructed. It was freely predicted that it would not be able to stand the constantly varying strains to which it would be subjected while revolving, and that it would topple over in a severe gale of wind. Nothing of the kind happened, however. No accident imperiling life or limb occurred, though it had a fearsome look and required a considerable degree of resolution to enter the cars and ascend the dizzy height to which the passengers were carried, and for a time it was not easy to assure the public of its safety.

On the opening day a band of music occupied the first car and played stirring airs as the great wheel revolved with its first load of passengers. "The cars moved up so slowly," says a writer, describing the event, "that their motion was almost imperceptible and quite noiseless. It seemed as if the earth were sinking away out of sight slowly and quietly. Going up the passengers had the whole of Chicago and the prairies for miles beyond laid before them unobscured. There was a clear view of the whole extent of the great Fair seen at a single glance, while the sail-dotted lake was beyond, and the swarming Midway Plaisance right beneath." This proved to be one of the principal attractions on the famous Midway, and the stockholders were rewarded with liberal dividends.

After the Fair had closed it was removed to the north side of the city, and re-erected on North Clark street near Diversey Boulevard, where it was a prominent object in the landscape for some years. Its patronage while in this location did not meet the expectations of its owners, and when the Louisiana Purchase Exposition was held at St. Louis, in 1904, the wheel was removed to that point. It was afterwards broken up and its material sold for old iron.

CONCESSIONS AND PRIVILEGES

The term "concession" was understood to mean "every line of business conducted upon the Exposition grounds for purposes of gain, whether the object of such business was the comfort of the public or its amusement or entertainment." Concessionaires were required to pay either on the "bonus" or percentage system. A "privilege" was granted to exhibitors who, in the process of exhibiting the details of manufacture of their wares, produced many articles which could be sold to visitors, in this way lessening their expenses. The latter were not required to pay as large a proportion from their sales as the former. These sources of revenue were keenly looked after by the management, and produced returns of over four millions of dollars, a very handsome and much needed addition to the receipts of the Fair.

STATUE IN LAKE FRONT PARK

The World's Fair management very generously made a provision for a statue of Columbus on the Lake Front which in due time appeared mounted on an appro-

priate pedestal. The figure was of bronze, colossal in size and cost a large sum of money, but it soon fell under popular condemnation. It was supposed to represent the great discoverer at the moment when he beheld the shores of the new world for the first time. The critics were not pleased with the manner in which he exhibited his emotions, considering that his attitude was lacking in dignity, that there was an expression of startled surprise in the attitude chosen, instead of a calm sense of triumph more fitting in such a situation.

Another figure, which was as much lacking in artistic merit, perhaps, as the one just mentioned, enjoyed a great degree of popularity at that time. It was that of a goddess with the legend "I Will" displayed on her breast, intended to represent the spirit and genius of the Chicago people. This, however, was looked at askance by the art critics and leaders of culture. An amusing suggestion was made by some wit that the "Lake Front Columbus" and the "I Will" girl ought to elope together. Columbus did not last very long, and a year or two later was pulled down from his pedestal and ingloriously flung into the junk heap. But the "I Will" goddess has survived all unfavorable criticism, and, in the form of statues and pictures, has been constantly before the eyes of the public to the present time. Its first presentation was in the form of a drawing, but it has been often modeled in clay and cut in stone since that time, and continues to do excellent service as one of the stock figures of the cartoonist.

SPECIAL DAYS AT THE FAIR

It was the custom to distinguish certain days during the continuance of the Fair by names, which it was supposed would arouse special enthusiasm, and thus cause an increased attendance. Thus there was an "Illinois day," a "British Empire day," a "Grand Army day," a "Michigan day," and the like. The twenty-second anniversary of the great fire occurred on the 9th of October. This day was set apart as "Chicago day," and it was celebrated by a remarkably large attendance, amounting to the extraordinary total of 716,881 paid admissions. The largest attendance on any one day at the World's Fair held in Paris in 1889, was 397,000, which established the record of the highest number of persons ever in attendance at a World's Fair up to the time of the "Chicago Day" celebration. In addition to a great number of visitors from elsewhere the people of Chicago turned out in multitudes.

By railroads, elevated trains, electric cars, cable cars, carriages and every other sort of vehicle, on foot, in passenger boats, the people poured in all day and evening at the numerous entrances to the grounds. The celebration of this day appealed to the pride of almost every inhabitant of the city, and it was determined to make "Chicago Day" the red-letter day of the Fair. The results exceeded the most sanguine expectations of the people. While the displays and amusements were at the height of their attractiveness at that period of the Fair, the vast concourse of people on that day, moving about on the grounds and in the buildings, was the greatest sight of all. The broad avenues between the buildings were packed, and the buildings were overflowing with humanity, and yet a more happy and merry lot of human beings was never collected together: the day fortunately was pleasant and everybody was there to have a good time.

One who entered the Fair on that day, in company with his son then quite a youth, relates that after passing through one of the side entrances along the Midway, together they proceeded towards the main portion of the grounds, where they found the crowd had become very great, though it was by no means a tight jam, as might have been expected where there were so many. Every one seemed to have room enough to move about comfortably. The two, in their wanderings, avoided the more popular attractions and spent some time in the Art Palace, where they rightly judged it would not be so crowded. From there they took a train on the "Intramural" and rode to the southern part of the grounds. They visited the great Machinery Hall, where there seemed to be plenty of room for every one to see what he wished without any undue pressure. Anticipating that there would be an enormous throng they had expected to have a struggle to proceed anywhere on their tour, and it therefore seemed a surprise to find the passage so easy. But when it was desired to procure some refreshments at any of the restaurants it was then seen what effect the overwhelming crowds had upon those necessary resorts. However, that event had been anticipated as a possibility and they got along very comfortably with a lunch that they had brought with them, though obliged to do without the warm drink they wished to procure. The memories of those days are among the most delightful of the many happy days that the past holds for us, even though some of them are flecked with shadows. The unprecedented attendance, as it was announced in the papers the next day, surprised every one of the friends of the Fair, and that is as much as saying the whole population of Chicago. Never, in its history, was there such a deep and strong flow of enthusiasm as that felt for everything that would make for the success of the Fair, by the people of Chicago, and indeed of the whole western country.

THE GREATEST DAY OF ALL

"On the anniversary of an unprecedented calamity," wrote Dr. Selim H. Peabody, "rehabilitated Chicago showed that she remembered her destruction only as the day from which to reckon her grandest achievements, and on that day she passed nearly three-fourths of a million people through the portals of the Exposition. The avenues, the plazas, the buildings, every acre of the great enclosure, were filled with an ever-moving throng, which was thoroughly responsive to the inspiration of the occasion and the environment. There was no symbol of control, for no control was needed. There was no instance of excess, or intoxication, or disorder. There was no soldiery, and no police other than the uniformed servants of the Exposition, who were guides rather than guards. This vast multitude, intelligent, interested, happy, was itself an exposition of the progress and social status of an educated and free people, moving amid such scenes of beauty and such treasures of information."

The New York *Tribune* of the 10th commented on the event as follows: "It was Chicago's own day, and right royally did she celebrate it. No previous World's Fair ever saw such a host of people as swarmed in Jackson Park yesterday, and the world will be considerably older before this unprecedented scene is repeated. Chicago doesn't do things by halves. She didn't when she erected the splendid

group of buildings on the lake shore, and of course she didn't on the day set apart for her own special glorification. Chicago Day was a stupendous success."

Mr. Higinbotham, the president of the Fair, was highly gratified at the result. "Everything favored the Fair," he said. "The weather was perfect. I was prepared for a big crowd, but the most extravagant estimate I had made on the day's attendance did not reach more than 500,000, and I would have been satisfied with that figure, for it would then have been the largest number of persons ever assembled at one time within an enclosure."

There were many other special days during the progress of the Fair, but none approached the number in attendance on Chicago day. The attendance on the Fourth of July was 283,273, which up to that time exceeded all previous records. Other important days in the attendance record were Illinois Day, (August 24th), 243,951; Wisconsin Day, (September 6th), 175,409; Iowa Day (September 21st), 199,174; Indiana Day (September 27th), 196,423; and Manhattan Day (October 21st), 298,928. Some other "days" exceeded even these figures, but the increasing interest among those visitors who had deferred their visits until the late days of the Fair was largely responsible for the attendance records shown.

ATTENDANCE AT WORLD'S FAIR

The total attendance at the World's Fair for the six months during which it was open, from May 1st to October 30th, inclusive, was 21,480,141; to which may be added those admitted on passes,—officials, workmen, concessioners, and exhibitors,—6,059,380; making a grand total of attendance 27,539,521. At the Paris Exposition of 1889, the total attendance was 28,149,353; but as the rates of admission were lower, their receipts from admissions were only about six millions of dollars, whereas those of the Chicago Fair were $10,626,330. The attendance at the Chicago Fair far exceeded that of the Centennial Exhibition in Philadelphia, in 1876, which was 9,910,996; with receipts of $3,813,724.

COMMENTS OF VISITORS

Walter Besant, the English novelist, writing on the Fair, saw in the throngs at the Fair a class of people representing the average all-around conditions of American life. "Let us say then," he says, "that the mass of the people are, apparently, of that very large class who do not possess the highest culture, the widest knowledge, the finest education or the largest fortunes—in a word, the Average People. It is for them that this Fair has been designed; every national work must be designed for the Average People; not for the few at the top or for the helpless lot in the gutter, but for the Average. . . .

"Let us remember that many of these people belong to that vast country west and south and northwest of Chicago which is newly settled, newly populated, and without noble or venerable buildings. Americans of the east are brought up in, or near, cities which are full of great buildings, some of which are beautiful and even venerable. Our own people live among the most beautiful village churches and the most lovely old houses. Our little island is crammed with ancient memories and places made sacred, even to the rustics, by mere memories. These Average People have no such surroundings, and no such memories. Here they see, for the

first time, such buildings as they have never before imagined. These lines of columns; these many statues standing against the deep, blue sky; these domes; these carvings and towers and marvels reflected in the waters of the Lagoon—will these People ever forget them? When they have seen at night the innumerable lines of white electric light; the domes outlined with the yellow light; the electric fountain; the illuminations; the gleaming waters—will these weary people from an unlovely Average village—can they—ever forget the scene? Never. It will remain in their minds as the Vision of St. John—an actual sight of the New Jerusalem; all the splendors that the apostle describes they will henceforth understand."

"As for Exhibitions—things shown—I do not love them. Early in life I was prejudiced against them. It was this way. . . . I was born in good time for the exhibition of 'fifty-one.' I was taken there as one of a small company of boys. The visit was designed strictly for instruction. Improvement was 'rubbed in'—as they say in ninety-three—during the whole of that long, dull, dreary day. We were told not to forget this and to make a note of that. I remember—it is forty-two years since that day—how wonder and delight quickly gave way to satiety, and that, in its turn, to utter weariness, and that to silent apathy. . . .

"Exhibitions thus became, to my youthful mind, collections brought together for the instruction and improvement of youth under the pretense of amusement. I still regard exhibitions with some prejudice, and I still look around—I never fail to find them—for the family party trailing round the galleries; for the weariness of the children's limbs, the dragging of their feet, the set mouth and the glazing eye. What I have desired all my life is an Exhibition without exhibits, and at Chicago that great and long-felt want is provided.

"There are, I believe, exhibits provided in the buildings, if you choose to go and look at them. But you need not. For the uncommercial drummer, the bagman without his bags, for one who is not in the least interested in machinery, processes, and the way in which things are made, there need be no exhibits at all, and one can meditate undisturbed by the intrusion of exhibits, as long as he pleases, about and around and among the buildings, and the waters and the walks of the Fairy palaces beside the lake."

Walter Besant, from whom we have just quoted, says further:

"Those English travelers who have written of Chicago dwell upon its vast wealth, its ceaseless activity, its enormous blocks of houses and offices, upon everything that is in Chicago except that side of it which is revealed in the World's Fair. Yes, it is a very busy place; its wealth is boundless, but it has been able to conceive somehow, and has carried into execution somehow, the greatest and most poetical dream that we have ever seen. Call it no more the White City on the Lake, it is Dreamland."

"Then again, the poetry of the thing! Did the conception spring from one brain, like the Iliad? Were these buildings—every one, to the unprofessional eye, a miracle of beauty—thus arranged so as to produce this marvelous effect of beauty by one master brain, or by many? For never before, in any age, in any country, has there been so wonderful an arrangement of lovely buildings as at Chicago in the present year of grace! The Hanging Gardens of Babylon were fine. There

were some very fine things in Rome, especially when Nero was emperor and architect, but the common people saw little of his palace. . . . But nowhere, at any time, has there been presented to the world any group of buildings so entirely beautiful in themselves and in their arrangement, as this group at Chicago, which they call the World's Fair."

GENERAL IMPRESSIONS

A writer in the Chicago Record's "History of World's Fair," says, "Most of the visitors to the Fair grounds must have been impressed by the great contrast between their southern and northern sections. In the first the effect aimed at is that of the formal, the academic, the ceremonial. In the second, art makes some concession to nature and the balance and symmetry required by the classic style give way to an adjustment that permits a free expression of the informal and the picturesque. The southern section is in the hands of New York and Boston. The northern section, grouped principally around the wooded island and the lagoons, has been intrusted chiefly to Chicago. The transition between the two sections begins through the comparative freedom of design noticeable in the Electricity and Mining Buildings; the new order is apparent in the informal disposition and independent draughting of the buildings of transportation, horticulture and fisheries among others, and reaches its frankest and freest developments among the various state buildings at the extreme north of the grounds.

"The same principle of easy transition also affects the landscape gardening and the various waterways. The stately parapets and terraces of the grand canal and its branches merge gracefully into the picturesque and winding courses of the lagoons, whose shores are fringed with a growth of aquatic plants. At one end of the grounds we find straight promenades bordered with formal parterres of grass and flowers; at the other end of the grounds visitors may stroll over the meandering gravel walks that lead through the natural groves of oak."

Charles Dudley Warner, writing in the Hartford *Courant* in July, said, "To one who studies the Fair, two things are special causes of wonder. One is that this marvelous thing could have been erected in the short time it was erected in. It is safe to say that no other nation could have done it, and it is safe to say that no other community in all history, except the Chicago community, could have done it. In no other city in the United States is there the requisite public spirit, generosity, and headlong energy. I think that this is, perhaps, the greatest exhibition that America makes at the Fair. It is an achievement, so far as I know, unparalleled. . . . The other wonderful thing is the mind that is put into the conception of the scheme and the administrative detail with which it is carried out. Nothing seems to have been neglected. The more we study the details of administration in any branch, the more we are impressed with this."

"THIS SURPASSES EVERY DREAM"

Mr. William Dean Howells, writing in the New York *Sun* of October 22d, said of the Fair: "It is the greatest thing that ever came into my life. It gives verity and value to everything. I have not been in Greece, and my conception of antiquity is rather of the grandeur of Rome than of the glory of Greece, but

this surpasses every dream. There never was and there may never be again anything so beautiful. Whatever may be done in the future, such an undertaking could never have been carried out before in this country, for we had not the talented men to take hold of it. I think it was such a big conception, that of loosening the hands of the artists and leaving them free to carry out their own ideas without cramping them by lack of sufficient means, or narrowing them to some preconceived idea. There was no niggardly competition, but rather emulation toward the highest and best. And the result is that the aesthetic interest in the Fair has quite eclipsed the industrial, which is a great thing for America."

A writer in "Harpers' Weekly" commented as follows: "It may be said without exaggeration that neither antiquity nor the middle ages nor modern times have brought forth anything comparable to this majestic architectural harmony." The writer laments the passing away of all these magnificent structures. "Like a gorgeous dream of human genius it has arisen, and like a vision it will pass away. It will live, however, as a glorious memory, and long be spoken of by this and coming generations as one of the greatest marvels of the closing nineteenth century."

In closing the account of the wonderful Exposition we realize that whatever we may have said here of it has been totally inadequate and incomplete, that its glorious reality far transcends the power of words to describe. We have been able to mention a few things only that seemed to be necessary to give the reader some faint conception of its beauty, its splendor, its "far-flung line" of glories, that are a precious memory to every one who beheld them.

Some of those who were filled with the spirit of the vision, in later years were invited to attend other great expositions; and the remark was often heard from such persons that, after the Chicago World's Fair, one had no desire to witness another of the kind that might dim or confuse the impressions there received. There is a beautiful fable that has come down to us from the ancients, which illustrates this desire to remain blind to all further spectacles and oblivious to their inspirations after a supreme experience of this kind. There was a hunter named Tiresias, who while wandering upon the side of Mount Helicon, in the heat of summer, sought to quench his thirst at the fountain called Hippocrene, sacred to the Muses. At the same moment Pallas Athene, the goddess of Wisdom, called by the Romans Minerva, in company with another goddess named Chariclo, who was the mother of the hunter, was also at the fountain; and thus Tiresias inadvertently beheld them. For this he was immediately struck blind, in accordance with the laws of Saturn which declared that whosoever should behold the gods against their will should suffer a heavy penalty. When Tiresias had fallen into this calamity, Charielo besought Minerva with tears to bestow upon her son some blessing or gift in compensation for his affliction. Minerva therefore endowed Tiresias with the gift of propheey and length of days. She even caused his prudence and wisdom to continue after he had entered among the shades, so that an oracle spake from his tomb. And hence Nonnus, in his writings, introduces Actaeon exclaiming "that he calls Tiresias happy, since without dying, and with the loss of his sight merely, he had beheld the goddess Minerva, and thus, though blind, could forevermore carry her image in his soul."

CHAPTER XLVI

SOME IMPORTANT RESULTS OF THE WORLD'S FAIR

LOCATING THE ART INSTITUTE—TERMS OF OCCUPATION OF ITS PRESENT SITE—THE FIELD COLUMBIAN MUSEUM—THE CONTRIBUTION OF MARSHALL FIELD—CONTRIBUTIONS MADE BY OTHERS—RELATIONS OF THE MUSEUM WITH THE PARK COMMISSIONERS—LOCATING THE MUSEUM—FORMATION OF ITS COLLECTION—DR. PEABODY'S REVIEW OF THE EXPOSITION—THE WORLD'S PROGRESS ILLUSTRATED—EDUCATIONAL VALUE OF THE EXPOSITION—ITS PRACTICAL AND ARTISTIC VALUE—LANDSCAPE AND ARCHITECTURAL ACHIEVEMENTS—THE ARTISTIC VALUE OF THE COURT OF HONOR—WORLD'S FAIR RETROSPECTIONS—PROPOSAL TO CONTINUE THE FAIR—FINALLY DECIDED ADVERSELY—DEATH OF THE ELDER MAYOR HARRISON—DEEP GLOOM ON THE CLOSING DAY CAUSED THEREBY—A SERIES OF FIRES CONSUME THE GREAT BUILDINGS AFTER CLOSE OF THE FAIR—DESCRIPTIONS OF THE FIRES—SCENES AFTER THE FIRES—SEVENTEEN YEARS AFTER THE FAIR.

THE ART INSTITUTE

THAT part of the original plan for locating the whole or part of the Fair on the Lake Front was finally modified to a contribution towards the building of the proposed Art Institute on that site. The plans for a permanent building had been matured by the managers of the Art Institute, and in aid of this the Exposition appropriated two hundred thousand dollars, with the understanding that the Art Institute, with the assistance of this appropriation, would construct a building at a cost of six hundred thousand dollars, which should be used by the World's Congress Auxiliary during the Exposition season, and at the close become the property of the Art Institute.

In 1892, the Art Institute, which had been incorporated in 1879, sold its building on the corner of Michigan Avenue and Van Buren street for $425,000, and was therefore prepared to take advantage of the opportunity afforded by the Columbian Exposition to obtain a footing upon the Lake Front. "The Columbian Exposition had determined to expend $200,000 upon a temporary building upon the Lake Front to be used for World's Congresses," says Mr. W. M. R. French, in the historical sketch of the Art Institute, printed in 1904. "It was proposed by the officers of the Art Institute that they should be allowed to add to this sum such amounts as they could raise, and erect a permanent building, which, after serving the purposes of the World's Congresses, should be permanently occupied as a museum by the Art Institute.

"By city ordinance, passed in March, 1891, permission was given for the erection of such building upon the Lake Front, opposite Adams street. Between Feb-

ruary, 1892, and May, 1893, the present museum building was completed after the plans of Shepley, Rutan & Coolidge, architects. During the construction, an injunction was issued, restraining the city from allowing the erection of any building upon the Lake Front, but it was dissolved upon a rehearing, mainly upon the ground that the Legislature of Illinois, by an act of 1890, had authorized the city to permit the erection of buildings connected with the Columbian Exposition upon the Lake Front, and to retain some of them permanently.

"By this decision, and under circumstances quite exceptional, the Art Institute was firmly established in its rights upon the Lake Front. The cost of the original building was $648,000, including two temporary halls removed at the end of the Fair, costing $27,000. Of this sum the Columbian Exposition paid $200,000, and the Art Institute $448,000. The money contributed by the Art Institute was raised partly by the sale of former property and partly by subscription. The ownership of this building was vested in the City of Chicago, until 1904, when it passed to the South Park Commissioners, while the right of use and occupation is vested in the Art Institute so long as it shall fulfill the purposes for which it was organized, shall open the museum free to the public on Wednesdays, Saturdays, Sundays and public holidays, shall make the Mayor and Comptroller of the city *ex-officio* members of the Board of Trustees, and shall conform to some other simple conditions. This property, comprising four hundred feet front on Michigan avenue, is exempt from taxation of all kinds. The Art Institute thus in effect made a gift to the people of the city of the money expended by it upon the building, and gained a public character very advantageous for the public service at which it aims."

THE FIELD COLUMBIAN MUSEUM

One of the results of the Fair was the formation of the Field Columbian Museum. Towards its close it was seen that the opportunity for forming a great museum was a most favorable one. Many of the exhibitors would be willing to leave valuable articles worthy of a place in a museum, provided there was an organization formed that would be responsible for their preservation. Many rare articles could be purchased at exceedingly low prices, some exhibitors preferring to take a merely nominal sum rather than to take the trouble of removing them. There were many beautiful articles shown at the Fair which were uniques, and if not acquired by an institution here would likely go elsewhere, and disappear from the view of our people forever. There would never in the future be an opportunity that could compare with the present occasion for making a successful start with an institution of this character.

THE ORGANIZATION OF THE MUSEUM

In the month of September, 1893, articles of incorporation of the "Columbian Museum" were taken out by the following named gentlemen, who had been constituted a committee for that purpose: Messrs. George E. Adams, Emil G. Hirsch, John A. Roche, Carter H. Harrison, Sidney C. Eastman, Adolphus C. Bartlett, Edward E. Ayer, Robert McCurdy, and Charles Fitzsimmons. On the 26th of October, Mr. Marshall Field announced that he would give one million dollars for the purposes of the museum, on certain conditions of contributions to be made

from other sources. The conditions made by Mr. Field were that $500,000 more in cash should be secured, and donations of $2,000,000 in stock of the Exposition, then thought to be worth about ten cents on the dollar. Subsequently, however, these conditions were waived.

The first Board of Trustees consisted of fifteen members. Their names were as follows: Norman Williams, Cyrus H. McCormick, Edward E. Ayer, Martin A. Ryerson, George R. Davis, Edwin Walker, George Manierre, Harlow N. Higinbotham, Owen F. Aldis, William J. Chalmers, George E. Adams, Watson Blair, Norman B. Ream, Huntington W. Jackson, and Arthur B. Jones. Other large contributors to the Museum were: George M. Pullman, who gave $100,000, H. N. Higinbotham, $100,000, and Mrs. George Sturgis, $50,000. In June, 1894, the name of the institution was changed to the "Field Columbian Museum." This name remained in use until November, 1905, when it was again changed to the "Field Museum of Natural History."

By an act of the State Legislature, dated May 14, 1903, the Park authorities are permitted to levy a tax of half a mill on each dollar of the assessed valuation of the property in the South Park district for the maintenance of the Museum. By the terms of the act referred to an admission fee of twenty-five cents for adults, and ten cents for children under ten years of age may be charged, but the Museum must be open three days in each week free of charge. Entrance for school children must be free at all times.

THE LOCATION OF THE MUSEUM

The Art Building had been constructed in a more substantial manner than most of the other buildings at the Fair, having in view the safety of the priceless treasures it was to contain. It was regarded as a fire-proof building. This building was fixed upon as the home of the museum. As the exhibits at the Art Building were the first to be removed the Museum trustees obtained possession of it soon after the Exposition closed, under an agreement with the South Park Commissioners, and articles for the Museum were placed there until they could be properly installed.

Frederick J. V. Skiff was chosen Director of the Museum and the work of gathering desirable objects began at once. The donations of articles were numerous, indeed exceeding all expectations. The public took an enormous interest in this splendid sequel of the Exposition just closing, regarding it as a perpetuation in some sense of the glories of the Fair. Foreigners were large benefactors and the Museum came at once into possession of a vast number of articles which under other circumstances it would have taken many years to acquire. With the generous provision made by Mr. Field and others the plans of the Museum authorities could be made on a broad scale.

After the gifts of Mr. Field and others for the Museum had been announced, the news was commented upon by "Harpers' Weekly," of New York, in its editorial columns, as follows: "What extraordinary givers these Chicago men are! It is exhilarating, even at this distance, to see the superb confidence with which they back up their town. Other cities get bequests now and then, but Chicago's rich

men have not had time to die, and neither she nor they can wait for that. They want to see that investment in actual being."

DR. PEABODY'S REVIEW OF THE EXPOSITION

The following extracts from the "History of the World's Columbian Exposition," are inserted here, and are from the concluding chapter of that work. This chapter was written by Dr. Selim H. Peabody, and it is considered by Mr. Higinbotham as the most satisfactory review of the Exposition in its educational and moral aspects.

"During the later centuries," writes Dr. Peabody, "the people of lands widely remote have frequently assembled in large numbers, and for friendly purposes, but with results as widely divergent as were the inspirations that attracted them. Many of these gatherings have been essentially commercial." At all times the question in the minds of those who resorted to them was the amount of profit they would gain. Fairs, such as were held in various countries of Europe, had the exchange of goods as the principal reason of their existence, though it is not denied that they had an educational value as well; still this was only incidental and casual. "The world's great expositions, held within the past half century, have differed essentially from such fairs in their inception, development, and personality of attendance, and therefore in their results. In them the commercial element, though never eliminated, has purposely been made subordinate."

The exposition, in general terms, has gradually assumed a new aspect. By a natural process of selection, only the best is offered for competition, and the exhibits come from wider and remoter regions. "The exposition stands at the meeting of the world's highways, where gather the nations of earth, burdened each with the evidences of its newest and noblest achievements. It is an epitome of the world's progress, a history and a prophecy. The latest discoveries, the newest inventions, the triumphs in art, in science, in education, in the solution of social and even of religious problems, are here arrayed. Here stand the most effective dynamo, the swiftest locomotive, the telescope piercing the remotest heavens, the most productive printing press, the most destructive artillery; machines that spin, weave, set type, thrash grain, mine coal, drill rock, fashion railway bars; the artist's dream on canvas or in marble, in clustering column or aspiring dome, in woven fabric or in decorated vase; the flower's effulgence and the fruit's alluring blush; all products of the soil, the mine, the sea; whatever testifies to the industry, the skill, the creative and almost divine power of human thought when stimulated to its most earnest endeavors. . . . There is a fascination in the enumeration of such items. In a way, they are properly accepted as indices of the progress they are supposed to record. They are like the mountain summits towering above the masses that stand as their foundations. They are like the flashing waves that run along the sands before the surges of the advancing tide."

THE WORLD'S PROGRESS ILLUSTRATED

"In this presentation of the purposes of a great exposition," continues Dr. Peabody, "the subject has been viewed generically, without reference to specific ex-

amples. To none are these propositions more applicable than to the Columbian Exposition of 1893, an example as eminently typical as it was fully developed. The student devoted to any department of research found here his most coveted opportunity for investigation. The chart of the world's progress was spread before him. In certain instances, as in the Department of Transportation exhibits, there was an epitome, not merely of a condition of advanced superiority, but of all the successive periods passed through, from that of the Appian Way to that of the bridge over the Forth; from the experimental Rocket to the Pullman train and the Empress-Queen locomotive, with all the multitudinous appliances of present railway practice. Such objective instruction was never before so completely organized. . . .

"At no former exposition were the earth's folk so numerously represented. Each quarter of the globe furnished its contingent. Aboriginal tribes came from the Arctic Zone and from the Southern Ocean; from the heart of Africa and from the North American forests. The Aryan, the Mongolian, the Semitic, the Malaysian, met and mingled, until the Pentecostal miracle was repeated. From all these exhibits, each typical in its way, might have been arranged the gamut of civilization. . . . While the Exposition thus set forth the peculiarities of every land and every clime, it also illustrated every phase of human progress, from days before those of the Pharaohs and Confucius to the moment" of its opening.

THE EXPOSITION'S EDUCATIVE VALUE

"Thus, by suggestion rather than by exhaustive analysis, do we discover the first phase of the educative value of the great Exposition. It was an epitome of all that was extant in the world as the outcome and the evidence of its advancement in every department of human effort; it was a condensed history of the successive epochs through which the human race has pursued its long and toilsome march toward the realization of its nobler destinies. To this may be referred all that is implied in the phrase acquisition of knowledge, the boundless opportunity for laborious examination, note-book in hand, amid a bewildering infinity of exhibits, over which no human being ever won the mastery.

"Education is not instruction so much as it is inspiration. This doctrine is often stated, commonly accepted, and yet, apparently, is but feebly appreciated. Educative values, educational results, are to be estimated not by facilities for imparting knowledge, but by the power of kindling in the soul its latent energies and of developing rightly balanced character. Knowledge is power, not *per se,* but as the stimulus of thought, or as the material on which the thinking mind may work. Prometheus bringing fire from heaven typified the true educator.

THE EXPOSITION'S PRACTICAL AND ARTISTIC VALUE

"In numerous instances the history of the great expositions records their power to startle nations from a fancied security into new and vigorous action. The surprises of the Exposition of 1851 are not forgotten. It was there made evident that in certain particulars the people of the United Kingdom of Great Britain and Ireland did not maintain the supremacy which they had long fancied was their

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THE CALIFORNIA BUILDING

own, and a commission of Parliament was directed to report upon the facts and their causes. In due time important educational reforms were instituted, and the agitation found a responsive echo in the United States, to which may be attributed the foundation of so many great technological and industrial schools in our country.

"The art exhibits at the Centennial Exposition of 1876 were a revelation to the masses of the American people, and from them flowed an inspiration that founded art schools and ingrafted art instruction upon many of our school systems, followed by a genuine revival of plastic, pictorial, and decorative art that beautifies and enriches all our life, public and private. To similar sources of inspiration, found also in the great expositions, may be traced the new renaissance, which now holds so strong a place in all enlightened nations.

"In the face of well-remembered maxims that forbid premature reckonings it may be hazardous to predict any specific educational movement such as has been cited. But in certain aspects the Exposition was peculiar, and by its peculiarities its capacity for instruction and inspiration was augmented. Its scheme of organization was broadened and was carefully differentiated. As it was evident that no departing visitor could ever boast that he had compassed the whole, it was imperative that none should have occasion to lament that nothing therein concerned or interested him. Proper classification aided the student in finding what he sought, and that in such a collocation as to make its lessons most impressive. Of the eleven exposition departments, five had not before been separately organized in a great exposition. These were the departments of Fisheries, Mines, Transportation, Electricity, and Ethnology. In each case, to the new department and to that from which it had been withdrawn, isolation lent an added dignity, a more elaborate administration, greater richness of detail, a completer presentation, and a much more impressive educational value. If by this arrangement exhibits were sometimes duplicated, it was only that relationships might be more clearly discerned, and that the *ensemble* of a department be more perfectly established. This movement was a step toward a more complete and therefore more desirable method of organization, which would arrange an exposition by subjects, rather than by states or nations; which would collect in one group whatever the world has to offer in any special field of science, discovery, or invention. For a congeries of many displays it would substitute one grand and thoroughly organized exposition. . . .

LANDSCAPE AND ARCHITECTURAL ACHIEVEMENTS

"The lessons that most impressed the millions who visited the wonders of the Exposition, which they accepted with greatest unanimity, and which they will most gladly recall as memory reproduces the events and the scenes of their pilgrimage, were those taught by the achievements of the landscape gardener and the architect. Entering upon a spacious area of virgin marsh, occupied only with alternate ridges of sand and lanes of water, vocal with the boom of the bittern, or rustling with the soft whirr of the mousing owl, these artists had absolutely *tabula rasa* for their work. There were no buildings to be removed, no trees to be preserved, no elevations to be leveled, no rocks to impede their progress. Did they wish for a lagoon, a steam dredge entering from the lake and floating in the channel made by itself readily transferred the sand from beneath to the adjacent

shore, where the almost fluid material presently assumed the qualities of an unyielding foundation. Upon such foundations, with the swiftness of an exhalation, and with a simulated solidity that appeared to emulate the endurance of the Parthenon, they reared a city whose magnificent grandeur was the delight of all nations. Attuned to a perfect harmony, the different edifices were but the varied tones of one sympathetic chord. There was the deep diapason of the building for Manufactures and the Liberal Arts; the *vox humana* and the *celeste* of Agriculture and Machinery; the falsetto of Transportation; while the aspiring dome of the Administration Building, like the commanding resonance of a mighty clarion, dominated and subdued all into one grand accordant strain, whose reverberations still ring within the memories of man.

"Designed under the influence of a common motive, the buildings presented that motive as interpreted by vigorous minds, acting independently under no restraints but those imposed by a style mutually accepted, a style already made glorious by the genius of two milleniums. The resulting group was such as might have been designed by the architects of the age of Pericles, builded of Pentelic marble, adorned by Phidias, and decorated by Apelles. To the visitor who, from the arch of the Water Gate, saw the Court of Honor under the light of the morning sun, or from the porches of the Administration Building when the steeds of the Quadriga were gilded by his setting rays, or from any coign of vantage beneath the soft effulgence of the midnight moon, came a vision of artistic fitness, perfect, enduring, uplifting. And at the twilight hour, when the lengthening shadows were penciling the lagoons, when by sudden and successive impulses electric rays flashed along the water's edge, along uplifted architrave and gable, and climbed the ribs of the great dome, crowning it with a coronet of glory; when other lights burst into brilliance rivaling the sunshine; when great searching beams, like spectral flails, thrashed the air, or poured upon groups of statuary a pure, cold whiteness like that of driven snow; and then when from the caverns of the earth sprang streams of gleaming color, or the heavens throbbed with the coruscations of jewels that blazed forth like meteors—then the eager and delighted throngs awoke to a full appreciation of the wondrous things that science has revealed from the arcana of Nature, and has added to the joys as well as to the utilities of life.

BLENDING OF NATURE AND ART

"Nor were such lessons to be learned only in the Court of Honor. By a turn of the flashing oar the gondola glided from a scene of artistic beauty, that was nevertheless wholly artificial, to another where Nature seemed to work in her own profusion. No longer within the restraint of marble walls, the waves washed grassy slopes and sedgy banks, where tangled thickets grew and wild flowers bloomed and water fowl concealed their nests. The Wooded Island was equally a creation of art.

"The millions who wandered through the thoroughfares of Jackson Park, who skimmed the lagoons in the electric boats and threaded the mazes of the Rose Garden, and consciously or unconsciously absorbed the beauty and the art revealed by decorated walls and towers and domes, must have carried to their homes impulses whose beneficial results can hardly be estimated. . . . The

Exposition will revive among the people of our country, if not of the whole world, a clearer appreciation of the subtle and satisfying value of classic architecture and of its perfect adaptation to buildings erected for large public use, where ample space may furnish the perspective necessary to an intelligent understanding of its harmonies."

WORLD'S FAIR RETROSPECTIONS

In April, 1909, the Chicago Association of Commerce gave a banquet in honor of the Japanese envoys who were visiting this country to gain information to use in the conduct of a World's Fair which the Japanese people are preparing for in 1917. On that occasion Mr. H. N. Higinbotham was present and was one of the principal speakers. In the course of his address he reviewed our own World's Fair of 1893. "I think I am safe in saying," said he, "that what we sought and strove to do was more than accomplished. We installed the very best examples in every department of human endeavor. The landscape gardener and the architect had the fullest opportunity to do their best. Landscape effects were produced as if by magic. The Wooded Island sprang into being, a thing of beauty. The Court of Honor appeared to rise out of the marsh with all the grandeur and loveliness of the dream of St. John on the island of Patmos.

"The Exposition was really the flower or culmination of the civic pride of the citizens of this great city. There was no aristocracy in its creation or management; it was of and for the people, and the joy and profit was theirs. Those of us who stood by and carried out their commands were amply repaid by the great measure of good it accomplished, and the satisfaction everywhere manifested by those who were at once the creators and the immediate beneficiaries."

The gale of popular enthusiasm which reached its greatest force at the World's Fair subsided slowly. It gradually blew itself out. It is not likely that another enterprise of the kind can be inaugurated and carried through for generations to come, indeed some think never.

PROPOSAL TO CONTINUE THE FAIR

The enthusiasm shown by the people for the Exposition was slow to subside, and a strong public sentiment in the closing days began to be manifested for the retention of the buildings in Jackson Park, with a view to reopening them in the spring following the closing date and continuing the exhibition. Mr. L. J. Gage, always a wise counsellor, said on this subject: "My instincts are against continuing it. There are several aspects of that side of the question that have struck me with considerable force. In the first place, the foreign governments would not be represented as they have been this year without new action on their part, and in fact many of the foreign commissioners have been already ordered to remove their installations to Antwerp to be shown at the exposition there next year. I do not think we could afford to have a second year of the Fair of a reduced quality. If the Fair should be carried over I am very much afraid it would be everywhere construed as a purely speculative piece of business, and in fact it would be such. The high lines on which it has been run would be degraded."

Another consideration was, in Mr. Gage's view, that the country towns would regard the continuation of the Fair as a grievance, because their people had spent

their money lavishly in attendance at the Fair, and had been obliged to economize severely in their home expenditures to the detriment of the local trade, and another year of it would continue the drain. It was estimated that the visitors spent one million dollars a day during the continuance of the Fair, which reduced the resources of the people to an alarming extent. "We have made a good record," said Mr. Gage. "Chicago has won bright laurels to adorn it in all history. I should not like to take the risk of soiling them."

Mr. Joseph Medill, editor of the Chicago *Tribune*, discouraged the idea of continuing the Fair through another season. "International expositions," said he, "are not expected to be permanent. They are, of necessity, intended to exist for a brief period only in any particular city." The official time for closing the Exposition had been fixed, and the exhibits would be rapidly removed, leaving only the buildings without their contents, and it would be almost impossible to fill them again in anything like the profusion and completeness of the Fair period. "Chicago has had her day with the Fair," continued Mr. Medill, "and I believe it would be a mistake to attempt to prolong it. . . . I cannot resist the conclusion that the show is over, and it is time to ring down the curtain."

The dream for the perpetuation of the glories of the Exposition was referred to in a letter of Charles Dudley Warner's in an Eastern paper, after the gates were finally closed: "But is the Fair ended?" he asks. "Not in Chicago," he continues. "Nothing is ended in Chicago. Every day is a day of new enterprise. While thousands were thinking, 'what a pity that this vision of beauty by the lake should vanish,' those men who make Chicago were already recasting a greater future for Jackson Park."

The sentiment at first was in favor of reopening the Fair in the following year, but as this was seen to be impracticable the people were content to build their hopes upon the magnificent provision for a Museum, the nucleus for which could be secured from the treasures that exhibitors would dispose of either by sale or gift. The Art Institute also inherited valuable portions of the art works shown in the Art Building, so that in the city of Chicago today there are thousands of reminders of the glorious period of the Exposition.

CLOSING DAYS

"To the management," says the President's Report, "the latter days brought a sense of great relief, with a feeling of extreme weariness. The debts were paid and there was a surplus sufficient to pay all expenses of closing, with a million dollars besides to return to the stockholders. The work was done. There was no more rush and hurry, for the battle was over. Nevertheless there was sadness in every heart as it became realized that the great Exposition was to be closed and removed, and that the waste place which had blossomed and grown so beautiful would soon become almost as barren as it had been at first." Again says the Report in its summing up of the Exposition's glorious career, "With all its shortcomings and failures, with all the false rumors and sensational reports, with the shortness of time, with the heavy financial burden and the coldness and lack of sympathy of the National Government, notwithstanding these and many other difficulties, our Exposition stamped itself indelibly upon the closing years of the

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VIEW OF THE WOODED ISLAND WITH DOME OF THE HORTICULTURAL HALL IN THE DISTANCE

Nineteenth century, and has left a mark upon our times, particularly in matters of taste and refinement, that seems to grow deeper as the Exposition vanishes into the past."

"We are turning our backs upon the fairest dream of civilization," said Dr. Barrows, at the closing of the Exposition, "and are about to consign it to the dust. It is like the death of a dear friend. It is like bidding farewell to one's youth. It is like all those times in the life of a man when the thoughts of the present are choked with the emotions of the past. At such times the call of duty alone can uplift the heart and arouse it to meet the things that are yet to come. That call is upon each one of us now. It echoes in the hearts of all that have been touched by these wonders which God has brought to pass. It bids us learn the lessons of the past season to the everlasting benefit of ourselves and our children. It bids us to appropriate to ourselves the imperishable parts of this high feast of the arts, industries, and sciences, and so embalm them in Memory's treasure house that they may be best preserved, and produce the largest fruits in the generations to come."

THE DEATH OF MAYOR HARRISON

On Saturday evening, October 28, 1893, Carter H. Harrison, Mayor of the City of Chicago, was shot and killed by an assassin on the threshold of his own home. This tragic event, an account of which is more fully given elsewhere, spread a pall of gloom over the closing days of the Exposition. It had been intended that on the last day of the Exposition, a programme of exercises appropriate to the occasion should be carried out; but all the plans that had been formed were suspended, and it was publicly announced that the programme had been abandoned. Instead, a meeting was held at which were present the officials and members of the Commission and Directory, and resolutions were adopted expressive of the sorrow felt by all in the presence of this terrible tragedy just as the closing hours of the Exposition had arrived. "Nothing has ever occurred in our midst," said the preamble, "that has so disturbed and distressed our citizens as the very wicked and wanton termination of the life of Hon. Carter H. Harrison. In the vigor of life, . . . in the enjoyment of the confidence and esteem of all, in the quiet evening of a day with its duties done, he sought rest only to be aroused by the rude entrance of an assassin bent on his destruction for a grievance wholly imaginary. The tranquillity of the city has been shaken as if by an earthquake."

The sense of the meeting was further expressed in these words of appreciation of Mr. Harrison's character: "No official has done more to impress on the Exposition its true character of generous rivalry among nations and individuals in all things that tend to national prosperity and international brotherhood, and none in his representative capacity could have more thoroughly attested the generous hospitality of this city whose chief magistrate he was."

The last day of the Exposition was marked by the display of flags at half mast, and an entire absence of anything like festivity, in view of the great bereavement thus suffered by the people of Chicago. "What would otherwise have been one of the most notable days of the Exposition," says the History, "passed in comparative silence and sadness. All the pageants, both land and water, and the grand spectacular effects that were to have marked the close, were abandoned, and the

day ended with the firing of the national salute and the lowering of the flags at sunset."

As the closing moment of the Exposition arrived the flags were hauled down from the flagstaffs on the Administration Plaza, amid an assemblage of silent spectators. "The great flags had been at half mast on the graceful standards upon the Plaza all day," says the Report, "on account of the recent tragedy. At sunset they were silently lowered to the ground and their folds fluttered down upon the multitude beneath, where they were gathered up by the employes and borne into the building, while the bystanders stood with uncovered heads. Many of those who witnessed this simple act could not restrain tears of sorrow for the sad ending of the glorious Exposition."

Mr. Charles Dudley Warner, writing in "Harpers' Weekly" and commenting upon the gloom which had enveloped the closing hours of the Exposition, said: "There is always a touch of tragedy in the career of Chicago. It is the pathetic penalty of great achievement. In the hour of triumph is the note of sorrow. It seems to be the law that there shall be no success without sacrifice, and it is the sacrifice as much as the heroism that consecrates. The history of this marvelous city is a record of suffering nobly endured, of disasters made the stepping stones of unexampled progress. Destiny has always some surprise in store for her, and if in the opinion of the world she is the child of fortune, there is the inevitable note of pathos in her life, without which no man and no city is taken to the heart of the world."

FIRES SUBSEQUENT TO THE FAIR

As we have seen, there was but one fire of importance during the Fair, that being the destruction of the Cold Storage building on the 10th of July, with the loss of many lives. After the Fair had closed the exhibitors rapidly removed their goods, and the buildings were thus left after a time without occupants. The care of the buildings was left to the Columbian Guards who were still in service. There was naturally a fear that fires would be started among the great empty buildings. The first of the series of fires, which eventually destroyed nearly all of the large Fair buildings, occurred on the 8th of January, 1894. "This fire," quoting from the report, "originated in the Casino, which, together with the Peristyle and the Music Hall, was completely destroyed. The fire communicated to the wooden promenade on the roof of the Manufactures Building, and this walk was consumed for several hundred feet. The fire was finally extinguished, but not until some exhibits which had not been removed had been damaged by falling sparks and brands, or by water used to quench the flames. For some time after this, fires broke out very frequently, indeed almost daily, justifying the suspicion that they were of incendiary origin."

One morning in the following February, the Colonnade at the end of the transverse canal opening out of the Grand Basin towards the south was discovered to be on fire. The fire department arrived promptly on the scene after wading through a deep snow which greatly impeded progress. The extent of the conflagration was confined to the Colonnade, and the great Agricultural Building and the Machinery Hall connecting at either end of it escaped for the time being.

It was no doubt the work of an incendiary whose purpose could only have been the witnessing of the spectacle it would have created.

In the meantime officers of the Exposition endeavored to sell the buildings, and had succeeded in disposing of quite a number. During the following summer, however, the fire-fiend anticipated the work of removal. On the evening of the 5th of July, 1894, the year following the Fair, the great destruction of buildings occurred. About six o'clock in the evening a fire was discovered in the Terminal building, just west of the Administration building, and though a prompt response by the fire department followed, the flames quickly enveloped the big railroad station and soon it was observed that the Administration Building was on fire. The blaze started at the base of the dome and quickly burned through, while the intense draft from the interior made the dome in a few minutes a roaring furnace. It was not long before smoke was seen issuing from the top followed by a roar, as a long tongue of flame shot into the air. The spectators waited for the collapse and in ten minutes it came. Using the language of the *Tribune* reporter, "There was a sort of a shifting of motion around the base of the dome and then the monster 'dream in gold and white' tottered, stood still for an instant, and then shut up as if it were a huge accordion."

Brands from the Administration Building flew across the space and soon the Electricity Building and the Mines Building were seen to be in flames. The moment that the blaze got inside of the Mines Building it seemed to shoot the entire length of the interior with the speed of an express train, and in a few seconds it was a roaring furnace. Then there was an explosion, and one-half of the roof and wall on the west side were blown outward. This gave full play to the flames and it was not long before all that was left were rows of red hot columns standing upright in the air and one by one slowly falling into the ruins.

DESTRUCTION OF THE GREAT MANUFACTURES BUILDING

By this time the Manufactures Building was on fire, at the south end. It took an hour to destroy this huge building. The roof was the first to burn, and in the progress of the fire the great girders were exposed to view. These held their positions for a time, but soon they began to sway, and, with a roar that sounded like a battery of artillery, half of the monster roof fell into the fiery furnace. The walls fell in directly afterwards. "Occasionally a tall pillar reached its way up through the fire and smoke as if it would defy the destroyer, but its reign was brief. Its base was soon melted and it followed its fellows into the burning mass."

Meantime on the other side of the Court of Honor the fire had pursued its resistless course and Machinery Hall and the Agricultural Building were quickly consumed. The papers of the following day contained graphic descriptions of the great conflagration, but it was noticed that no feeling of regret was shown by the people over the destruction and loss of the World's Fair buildings. They had served their purpose and their mission was fulfilled; their final disposition had become an embarassment to the officers of the Exposition. And while the fire did not by any means sweep away all the buildings on the grounds, the greatest and most difficult to dispose of had been laid low in a few hours, though in such a tangled mass of wreckage that it was still a matter of great difficulty to clear away the

ruins. It was a matter of great satisfaction that the fire had not reached as far as the Art Building, now changed in its use to that of the Field Columbian Museum, containing vast treasures.

As a spectacle this fire exceeded anything of the kind that had occurred since the Great Fire of 1871. After darkness had set in the glow of the fire could be seen to a great distance. People in Waukegan, forty-three miles away, could plainly see the light of the fire. In the city hundreds of persons went to the upper stories of the tall buildings in the down town district to watch the spectacle, and many took cars to the south part of the city in order to obtain a closer view. The masses of spectators in the grounds found a favorable point of observation at the Wooded Island, which was crowded with people. From that point the destruction of the Manufactures building could be seen to the best advantage.

"A grand, a glorious ending," says the report in the *Tribune*, "was the expressed sentiment of the great crowd that witnessed the forest of fire." The one hundred thousand people congregated made the trip leisurely to Jackson Park, and good naturedly walked around viewing the sight from different points. After a time the thousands became settled in favored spots and quietly gazed upon the magnificent destruction, much as they gazed at the fireworks display of the previous summer. "There was no regret, rather a feeling of pleasure, that the great buildings had been consumed by fire, and had not fallen a prey to the wreckers."

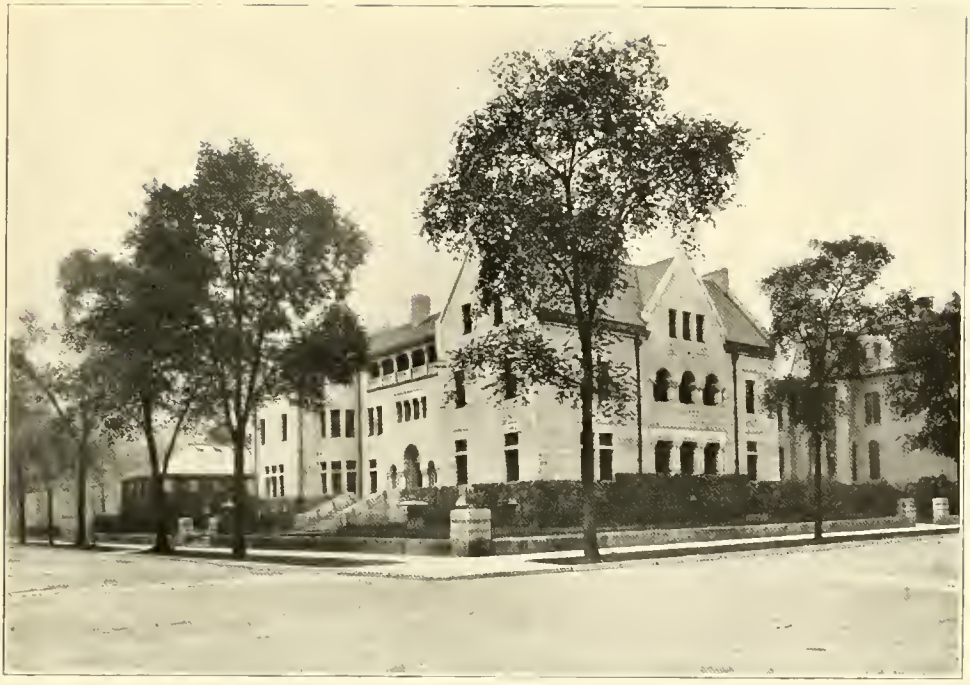
SCENES AFTER THE FAIR

The melancholy desolation that pervaded the landscape after the fire saddened and oppressed the beholder. A few days thereafter a visitor to the scene describes his impressions. It was less than one year after the great Exposition had closed, and the visitor was still under the spell of its memories. "Of the palaces that fringe the Court of Honor," he writes, "including the Administration Building, which used to wear its electric-studded dome at night as if it were a tiara, there is no vestige,—not even a broken column to serve as monument. But there is one gleam of gold in that desolate landscape. It is the statue of the Republic, which the leveling of all the palaces has left in magnificent exposure. By it rises a rostral column supporting a statue of Neptune, a column fretted with the prows of Roman galleys—a column such as some victorious Emperor raised in Rome to commemorate his triumph. . . .

"Where the vast Manufactures Building once reposed its mammoth length not one of its great columns and arches remains. Not one of those walls which might have sheltered armies was left standing. The huge iron framework has shriveled into something which looks like the backbone of a leviathan retaining the contortions of its death agony."

SEVENTEEN YEARS AFTER

An echo of the Exposition is found in an address made by Thomas Nelson Page in December, 1910, before the convention of the American Civic Association in Washington, D. C. He characterized the "White City" of the World's Columbian Exposition as "the real beginning and the inspiration for a new era of art and architecture in this country." The speaker looked back to the state of architecture as it existed in the time previous to the Exposition. "Out of the worst period



RESIDENCE OF HARLOW N. HIGINBOTHAM

RESIDENCE OF MRS. POTTER PALMER

of American architecture," said Mr. Page, "when we had all gone wild about mansard roofing and the Queen Anne style, there suddenly arose a city within a city, a city like a dream. Chicago, the parent city, had been regarded as the very center of commercialism, but it gave birth to the 'White City' which sprang up on the shores of Lake Michigan. The great Exposition which it housed was supposed to represent the triumphs of commerce and of trade, but in its planning and construction the White City really did represent the greatest example of modern genius."

The great impetus given to the World's Peace Movement by means of Mr. Andrew Carnegie's gift of ten millions of dollars as an endowment for this purpose, was commented upon by Mr. H. N. Higinbotham in an address made on the 18th of December, 1910, in Chicago. Mr. Higinbotham recalled the work of the World's Congresses at the Exposition, which he regarded "as the sowing of the seed that resulted in the beautiful flower of Mr. Andrew Carnegie's munificent endowment, the fruitage of which will undoubtedly be 'Universal Peace in all the Earth.'" Further, referring to Mr. Page's address in Washington Mr. Higinbotham said: "Thomas Nelson Page has most graciously acknowledged that our World's Columbian Exposition was an inspiration in architecture, a dream city that will never die; although as a material entity it disappeared even more quickly than it sprang into being."

CHAPTER XLVII

SANITARY DISTRICT

FIRST MOVEMENT FOR DRAINAGE CHANNEL—PROBLEM OF SEWAGE DISPOSAL—FLOOD DISCHARGES COMPLICATE THE PROBLEM—COUNCIL TAKES ACTION—COMMISSION AUTHORIZED—ENGINEERS APPOINTED—REPORT OF THE ENGINEERS—ESTIMATES OF COST—WATER POWER CONSIDERED—PURE DRINKING WATER ASSURED—COMMITTEE APPOINTED BY THE LEGISLATURE—LAW CREATING SANITARY DISTRICT ENACTED IN 1889—PROVISIONS OF THE ACT—JUDGE HURD'S SERVICES—SANITARY DISTRICT BEGINS LEGAL EXISTENCE—BOARD OF TRUSTEES ELECTED—BOUNDARIES OF DISTRICT—TOPOGRAPHY OF THE GREAT DIVIDE—THE CHICAGO AND DESPLAINES RIVER—LYMAN E. COOLEY FIRST ENGINEER—COOLEY'S REPORT AND RESIGNATION—FREQUENT CHANGES OF ENGINEERS—"SHOVEL DAY," SEPTEMBER 3, 1892—FIRST EARTH TURNED BY PRESIDENT WENTER—WENTER'S ADDRESS—OTHER ADDRESSES—SEVEN YEARS OF CONSTRUCTION WORK—ISHAM RANDOLPH BECOMES CHIEF ENGINEER JUNE 7, 1893—SANITARY CANAL OPENED JANUARY 2, 1900—THE GOVERNOR'S PERMIT—DETAILS OF THE OPENING—GREAT PUBLIC INTEREST IN THE EVENT.

FIRST MOVEMENT FOR DRAINAGE CHANNEL

THE Citizens' Association of Chicago, through the newspapers and printed pamphlets, began, in 1880, the work of creating and fostering a public sentiment which demanded better drainage for the city. Expert examinations were made by the association and their results made public, and although the suggestions made by the association were not always practical, "they kept the people thinking, a very useful preliminary to public legislation." Of the various plans proposed the one which received the approval of the committee on drainage, appointed by the association, provided for the construction of an entirely new canal or channel, to be called "New River," to start from the West fork of the South Branch, running between the old canal and the Desplaines river and ending at Joliet, a distance of thirty-one and a half miles. To carry out this project would require legislative action creating a drainage district. The estimated cost of the New River was nearly seven millions of dollars.

The Fullerton avenue conduit, something over two miles long, was completed in 1880. It was a brick tunnel twelve feet in diameter, built along Fullerton avenue from the lake to the North Branch. Pumping machinery was placed at the river end and water could be pumped into the river from the lake or into the lake from the river as might be required. This conduit, however, was not able to keep the North Branch clear of offensive sewage; for even after it was finished and at work the sewage in that stream continued to increase. It was found that more ef-

ficient means for flushing the North Branch must be provided, though this problem has had to wait many years for its solution.

The extraordinarily rapid growth of the city with the consequent greatly increased discharge of sewage soon made it evident that the Illinois and Michigan canal was utterly inadequate as a channel of drainage. Early in August, 1885, a heavy flood on the Desplaines swept over the divide into the South Branch and carried the entire contents of the river out into the lake. The pollution of the city water supply was so intolerable that action was hastened to remedy the drainage conditions. Another committee made a report soon after the flood occurred. This committee was composed of Ossian Guthrie, Lyman E. Cooley, F. W. Reilly, William Rutherford, Charles A. McDonald, David Bradley, J. J. Glessner, and Edwin Lee Brown. In the report of this committee it was stated that the water of Lake Michigan in its natural condition was perfectly satisfactory, but that the water supply of the city was frequently, and during considerable periods of time, dangerously contaminated; and that the river water and sewage have, on several occasions, reached the crib "in an unbroken flow;" and attention was called to the danger in the future from such "flood discharges." The closing of the Ogden-Wentworth ditch permanently was recommended. "For ten years at least," said the committee, "the ordinary flow of the Desplaines from a watershed of many hundred square miles has come to Chicago to complicate her main drainage and render the canal ineffective; and with each year larger proportions of flood waters find their outlet in this direction, threatening a complete diversion at an early day, unless remedial measures are adopted." This committee concluded its report by urging the appointment of an expert Commission whose duty it should be to make an exhaustive investigation of the whole subject of sewage disposal.

ACTION BY THE COMMON COUNCIL

The great interest in the matter taken by the Chicago Citizen's Association, together with the urgent appeals of the press, prompted the City Council to pass a resolution authorizing the creation of a "Drainage and Water Supply Commission." This resolution was adopted on January 27, 1886. Heretofore all the committees had been of a private character, and their reports made to a private organization. But now the first official step was taken by the Chicago Common Council in the movement which resulted in the excavation of the great Drainage Canal, one of the greatest engineering achievements of the nineteenth century. We shall feel justified, in view of the importance of the subject, in giving the full text of the preambles and resolution adopted by the Council.

TEXT OF RESOLUTION AUTHORIZING COMMISSION

"Whereas, Pure water and scientific drainage are necessities of this community, and the people demand a system of water supply and drainage adequate to meet the requirements not only of the present, but of years to come, nor will any temporary expedient or makeshift satisfy them; and

"Whereas, A thorough and permanent system of supplying pure water to our citizens and caring for the drainage of the municipality cannot be paid for out of current taxation, therefore it is desired that a plan shall be devised and perfected

before the next meeting of the Legislature to the end that necessary legislation may be had.

"For the purpose of carrying into effect the objects sought, there is recommended the appointment by the Mayor of a Commission to consist of one expert engineer, whose reputation is so high that his opinion and report will command the respect of the community, and with him one or two consulting engineers of like experience in engineering and sanitary matters. The duty of this Drainage and Water Supply Commission, made up as above set forth, should be to consider all plans relating to drainage and water supply which may be brought to its attention; to make such examinations and investigations and surveys as may be deemed necessary; to collect all information bearing on this problem; to consider all recent developments in the matter of sewage disposal, and their application to our present and future needs; to consider and meet the necessity of increasing our water supply and of protecting the same from contamination; to remedy our present inadequate methods of drainage and sewage disposal; to consider the relations of any system proposed to adjacent districts, and whether there may not be a union between the city and its suburbs to solve the great problem; to determine the great question as to the interest which the State and the United States may have in the disposal of sewage by way of the Illinois river; to devise plans to meet any objections thereto, if such a system shall be thought best; and, in general, to consider and report upon any and all things which relate to the matter of water supply and drainage of the City of Chicago.

"The Commission should report on the whole matter committed to it in the most full and comprehensive manner, with maps, plans and diagrams complete, and accompany the report with estimates of the first cost and annual requirements for the maintenance of the system proposed.

"The report of the Commission should be made as early as practicable, and not later than the convening of the next session of the Illinois Legislature, in January, 1887.

"In consideration of the foregoing, be it

"*Resolved,* That the Mayor be and he is hereby authorized and directed to employ on behalf of the city one expert engineer of reputation and experience in engineering and sanitary matters, at a salary not to exceed ten thousand dollars per annum, and also to employ such consulting engineers, not exceeding two in number, as may seem necessary, and such assistant engineers as may be required, all to be paid according to services rendered, for the purpose of carrying out the objects set forth in the preamble hereto. For the fees of said assistant engineers and for all expenses connected with said work there shall be allowed not to exceed the sum of twenty thousand dollars. All fees, salaries and expenses connected with said work shall not exceed in the aggregate the sum of thirty thousand dollars, and the same shall be paid from the water fund of the city upon vouchers audited by the Mayor and City Comptroller."

APPOINTMENTS ON THE COMMISSION

Mayor Carter H. Harrison appointed Rudolph Hering as chief engineer, Benezette Williams and Samuel G. Artingstall as consulting engineers, these three

constituting the Drainage and Water Supply Commission. Mr. Hering entered upon his duties on the 28th of March; Mr. Williams on the 17th of September, and Mr. Artingstall on the 21st of December, 1886.

The Commission made a report in January, 1887, as required by the Council's resolution. It is signed by the three engineers above named. "The investigation designated by the resolution," says the report, "was a formidable one, comprising no less a task than the consideration of the entire subject of the future water supply and drainage of Chicago. It appeared doubtful from the beginning that a report such as was demanded could be furnished within the specified time, for the simple reason, if for no other, that observations of the lake phenomena, and of the flow of certain rivers, should be extended over at least one year, covering four consecutive seasons, in order to draw satisfactory deductions."

ESSENTIAL FEATURES OF THE REPORT

From a great variety of plans and suggestions offered and considered in previous reports, newspaper discussions and personal observations, added to the special investigations made by themselves, the engineers of the Commission were able to recommend a coherent, consistent and practicable plan, which in the main was the one finally adopted. In their report the whole subject was considered, the faults and shortcomings of previous methods condemned, the future growth of the city and its requirements outlined, and a large and comprehensive treatment of the problem insisted upon. One branch of their investigation extended "to the elements governing the proper size for the waterway from which a larger proportion of the storm water has been excluded. The area still draining into it will consist largely of paved streets and roofs, allowing of no absorption and shedding the water rapidly. It requires a careful consideration," says the report, "to determine the maximum quantity of water that may enter the proposed channel, and for which an ample allowance must be made to prevent a back flow of the polluted water to the lake.

"The proper degree of sewage dilution in the new channel demanded a careful investigation," continues the report. "When sewage is mingled with a sufficiently large quantity of water it not only becomes inoffensive, but readily finds the oxygen which gradually purifies it." Then follows an estimate of the volume of water that the proposed channel should carry in order to afford a proper degree of dilution. "We have assumed," say the engineers, "thirty-six hundred square feet for the cross section, and a velocity of the water three feet per second, or two miles per hour. This gives a discharge of six hundred thousand cubic feet of water per minute, or twenty-four thousand cubic feet for each one hundred thousand persons, which we believe equal to the requirements of a population of two and a half millions of people."

The cost of the proposed channel then became the subject of consideration in the report. Following a detailed series of estimates for separate parts of the work, the report continues: "The total cost of the Desplaines drainage project would therefore be, for the main district, between twenty million, two hundred and fifty thousand dollars, and twenty-four million, five hundred and fifty thousand dollars." Further the report says: "Besides the economical advantages of the

Desplaines scheme, its superiority is still further emphasized by advantages of another kind. The proposed canal will, from its necessary dimensions and its regular discharge, produce a magnificent waterway between Chicago and the Mississippi river, suitable for the navigation of boats having as much as two thousand tons burden. It will establish an available water power between Lockport and Marseilles fully twice as large as that of the Mississippi river at Minneapolis, which will be of great commercial value to the state."

COMPARED WITH PRESENT CONDITIONS

This vision of the future may be compared, in passing, with the actual conditions of to-day. Mr. Robert R. McCormick, President of the Board of Trustees of the Sanitary District, in his message to the Board, for the year 1909, says that for a distance of thirty-two and four-tenths miles the canal "is an absolute artificial waterway, carved out of the prairie, or built above ground," that "the south nineteen and eleven one-hundredths miles of the canal runs through solid rock, where it is one hundred and sixty feet wide on the bottom, with vertical sides, and approximately twenty-six feet deep." Following this statement he says, in reference to the plan of making use of the canal for navigation purposes, the favorite idea entertained by the projectors, "One familiar with the channel and with the handling of ships cannot but wonder how ships of the lake-going class, or the kind which need movable draws to pass by bridges, will ever go as far as Lockport. The cut through the rock, as has been said above, is one hundred and sixty feet in width. The modern freighter, shall we say, is five hundred feet long and fifty feet broad. The current through the rock section will be two and one-half miles per hour. Imagine one of these ships lying at the dock, increasing the current to three miles an hour. Imagine a stiff breeze across the channel, and the difficulty with which a ship moving down stream will pass. Imagine the rock section lined with docked ships and imagine the passage. Or even if no ships are tied to the dock what shipowner will wish a five hundred thousand dollar vessel to steam against a current of three miles to the hour, when a sheer of fifty feet to either side will destroy this property?"

This eminently practical view of the subject is always ignored by the philosophers who write to the papers, or make speeches on the uses of the great channel as a waterway between the lakes and the Mississippi.

GENERAL CONCLUSIONS OF THE REPORT

The report of the engineers included the following passage: "In reaching the conclusion that the sewage of the city should be discharged into the Mississippi valley, the question of water supply is materially simplified, because the lake will then at all times furnish good water wherever intakes are desired for an extension of the works. . . . With the sewage kept out of the lake, there is no need of locating the intake farther than two miles from the shore, where water can be obtained sufficiently free from suspended earthy matter, and where a depth of about thirty feet is generally found, which is the least depth desirable for a submerged inlet."

When the commission approached the close of their exhaustive report, pre-

senting the results of the investigations upon which their conclusions had been based,—"indicating the general solution of the Chicago drainage and water supply problem,"—they suggested the manner of its control and management. "We desire to state," said the engineers, "that, in order to reach the best results, it is imperative to have all the main drainage works, such as intercepting sewers, waterways and pumping stations, executed and maintained under a single management." The plan here suggested of placing the water supply and the drainage systems under one management, seemed, to the members of the Commission, a practicable method, but, as we shall see, this plan was modified in the legislation following the presentation of the report. In the main, however, the engineers composing the Commission marked out the best method of dealing with the problem, which essentially was followed in the plans finally adopted. Referring to this report, Mr. Lyman E. Cooley in his work entitled "The Lakes and Gulf Waterway," published in 1890, said that "the available data had been practically exhausted by the labors of the Drainage and Water Supply Commission . . . and was made full use of in maturing the present law." This law will be referred to presently.

The drainage question in Chicago has always been bound up with that of the water supply, it being necessary to consider the two subjects together. In this respect the problem has been different from the problems usually presented in other great cities where the one question is not involved with the other. At this time perhaps no city in the world has so complete and thorough a drainage system as Chicago has, but it is likely that we would never have expended the enormous sums to accomplish it that we have done if our people had not been driven to it by the necessity of maintaining a pure water supply.

THE LEGISLATURE APPOINTS A COMMITTEE

A few months after the report of the engineers had been made to the Chicago Common Council in January, 1887, the Illinois State Legislature adopted a resolution providing for the appointment of a committee of five, whose duty was to examine and report upon the subject of the drainage of Chicago and its suburbs to the next session of the Legislature. This committee consisted of B. A. Eckhardt, John A. Roche, and Thomas C. MacMillan, of Chicago, Andrew J. Bell, of Peoria, and Thomas H. Riley of Joliet. "If such commission," said the resolution, "shall find upon investigation that the most practicable solution of the problem is in the construction of a waterway for the sewage from Chicago to the Desplaines River at or near Joliet, the commission shall report what requirements should be made as to the construction of such waterway, and the dilution of such sewage for the protection of the health and comfort of the people along the Desplaines River at and below Joliet."

During the two following years the committee, or Commission (either term being employed indifferently), held many public meetings and had many conferences with the people living in the Desplaines and Illinois river valleys. As a result of this interchange of opinion, together with a careful study of the needs of the city of Chicago and the welfare of the inhabitants of the river valleys, and with the aid of the best legal counsel, a bill was reported in the legislature on February 1, 1889, entitled "An Act creating the Chicago Sanitary District." The

committee stated in their report, accompanying the bill, that it had "visited and surveyed the territory sought to be improved," had held conferences "with the representatives from all the leading cities, towns and villages affected," and had found an earnest spirit "manifested to aid in the solution of this important problem." The committee concluded their report as follows: "The plan agreed upon by the commission, as set forth in detail in the bill which accompanies this report, is believed by the commission to be the most feasible, practicable and satisfactory method for all the varied interests involved."

During the time that the bill was under consideration by the legislature, "arguments for and against it were heard from prominent citizens of Chicago and towns in the interior of the State. A delegation of citizens was sent from Joliet to Springfield to urge the passage of the bill, and resolutions advocating its passage were adopted by the business men of Marseilles and forwarded to the House."[1]

The bill was passed by the legislature and received the governor's signature on May 29th, and became effective July 1, 1889.

JUDGE HURD'S SERVICES

The man who was most efficient in the preparation of the law creating the Sanitary District was Mr. Harvey B. Hurd of Evanston. The "best legal counsel," mentioned in the report of the Commission, referred to him. Mr. Hurd was called "Judge," out of respect for his legal attainments. He never held the office of Judge, though he was once an unsuccessful candidate for the Supreme bench. Judge Hurd unselfishly gave his time and talents to the formative work of the Sanitary District, which was followed by the construction of the Sanitary Canal. He never charged the District one cent for his services, and never received from it a fee of any kind. From an early period he had taken a deep interest in matters affecting drainage of large districts, and, as far back as 1855, he was the moving spirit in the work of draining the low prairie lands west of Evanston.

In the preparation of the bill for the organization of the Sanitary District, it was Judge Hurd who advised the plan of a separate taxing body or municipality whose object should be "the maintenance of a common outlet for the drainage" of an area, which "will conduce to the preservation of the public health." The City of Chicago was unable to finance so large an undertaking as would be involved in the construction of adequate drainage works, and hence this device of a separate municipality, with independent powers of taxation and issuance of bonds, became necessary in order to make possible the raising of adequate funds for the purposes contemplated. So well had the plan been considered and so soundly was it based on fundamental principles of law, that the legislation creating the Sanitary District has stood every legal test which was afterwards applied to it, as the decisions of the Illinois Supreme Court show. In its progress through the Legislature the bill was known as the "Hurd bill," and to Judge Hurd must be given the credit and glory of this splendid legislation; the people of Chicago are under lasting obligations to him for the services he performed during its initial stages.

[1] Brown, History of the Drainage Channel, p. 376.

In an obituary notice printed in the Chicago *Legal News* for January 20, 1906, soon after Judge Hurd's death, the following passage occurs. "Mr. Hurd has the credit of being the father of the new drainage system of Chicago. While he did not first suggest such a channel, he was, without doubt, the author of the plan of creating a Municipal district of the city of Chicago—the Chicago Sanitary District—and getting it adopted. He was the author of the first bill on the subject introduced into the Legislature in 1886, known as the Hurd bill, which resulted in a legislative commission to investigate further the subject and present a bill. The bill, reported by that commission, passed in 1889, although it differed in some respects from the original Hurd bill, was in the main the same."

THE SANITARY DISTRICT BEGINS LEGAL EXISTENCE

Under the Constitution of Illinois special legislation is prohibited. Hence the language of the act is general, and intended to meet a certain set of conditions. "Be it enacted by the People of the State of Illinois," begins the act, "That whenever any area of contiguous territory within the limits of a single county shall contain two or more incorporated cities, towns or villages and shall be so situated that the maintenance of a common outlet for the drainage thereof will conduce to the preservation of the public health, the same may be incorporated as a sanitary district under this act."

The manner in which the preliminary steps are to be taken is then specified. A petition to form such a district must be signed by five thousand voters, an election is to be held, and, in case a majority of the voters approve of its formation, it "shall thenceforth be deemed an organized sanitary district under this act." The petition was to be addressed to the county judge, who would then direct the preliminaries.

In accordance with the law a drainage district within the limits of Cook County was outlined and its boundaries indicated. More than the requisite five thousand signatures were readily obtained, and the County Judge, Honorable Richard Prendergast, ordered an election to be held November 5, 1889. The vote was as follows: "For the Sanitary District," 70,958; "against," 242. This indicated the almost unanimous approval of the people for the proposed district.

FURTHER PROVISIONS OF THE ACT

In continuance of this summary of the provisions of the act, which is precise and enters into many details, it is further stated, that a board of nine trustees shall be elected who shall choose one of their number to be president, and "such sanitary district shall from the time of the first election held by it under this act be construed in law and equity a body corporate and politic, and . . . may sue and be sued, contract and be contracted with, acquire and hold real estate and personal property necessary for corporate purposes, and adopt a common seal. . . . Said board of trustees shall have power to pass all necessary ordinances, rules and regulations for the proper management and conduct of the business of said board of trustees and of said corporation, and for carrying into effect the objects for which such sanitary district is formed."

CHANNELS, DOCKS AND WATER POWER

The act further provided that, "The Board of Trustees of any sanitary district organized under this act shall have power to provide for the drainage of such district by laying out, establishing, constructing and maintaining one or more channels, drains, ditches and outlets for carrying off and disposing of the drainage (including the sewage) of such district, together with such adjuncts and additions thereto as may be necessary or proper to cause such channels or outlets to accomplish the end for which they are designed in a satisfactory manner; also to make and establish docks adjacent to any navigable channel made under the provisions hereof for drainage purposes, and to lease, manage and control such docks, and also to control and dispose of any water power which may be incidentally created in the construction and use of said channels or outlets, but in no case shall said board have any power to control water after it passes beyond its channel, waterways, races or structures into a river or natural waterway or channel or water power or docks situated on such river or natural waterway or channel: Provided, however, nothing in this act shall be construed to abridge or prevent the State from hereafter requiring a portion of the funds derived from such water-power, dockage or wharfage to be paid into the State Treasury to be used for State purposes. Such channels or outlets, may extend outside of the territory included within such sanitary district, and the rights and powers of said board of trustees over the portion of such channel or outlet lying outside of such district shall be the same as those vested in said board over that portion of such channels or outlets within the said district."

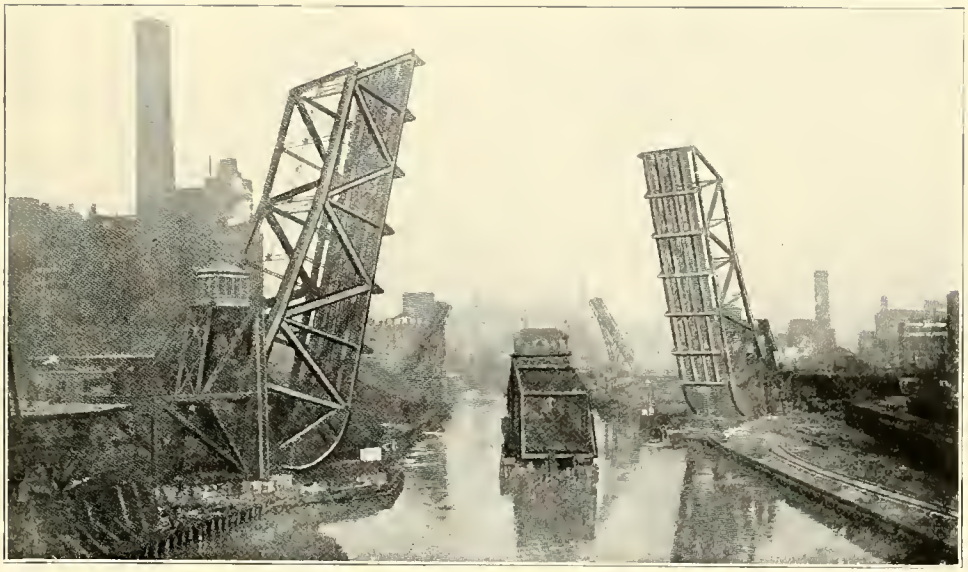
POWER TO BORROW MONEY AND LAY TAXES

The power to issue bonds for borrowed money is given to the corporation, to an amount not to exceed five per cent on the valuation of taxable property. The board of trustees shall provide for the collection of a direct tax to pay the interest on the bonds, and to discharge the principal as it becomes due.

The Board is also empowered to acquire public or private property in the same manner as is provided in the act already on the statute books, "for the exercise of the right of eminent domain." It may "enter upon, use, widen, deepen and improve any navigable or other waters, waterways, canal or lake within the limits of the county, wherein the sanitary district is situated."

CAPACITY OF CHANNEL OR OUTLET

Under this head the act provides that "Any channel or outlet constructed under the provisions of this act, which shall cause the discharge of sewage into or through any river or stream of water beyond or without the limits of the district constructing the same, shall be of sufficient size and capacity to produce a continuous flow of water of at least two hundred cubic feet per minute for each one thousand of the population of the district drained thereby, and the same shall be kept and maintained of such size and in such condition that the water thereof shall be neither offensive or injurious to the health of any of the people of this State, and before any sewage shall be discharged into such channel or outlet,



RIVER GATEWAY TO CANAL

NATURAL STONE BANKS THROUGH THE "ROCK CUT"

all garbage, dead animals, and parts thereof, and other solids shall be taken therefrom."

On this basis a district containing a population of three million of people would require a continuous flow of six hundred thousand cubic feet of water per minute.

At the time the act was passed, in 1889, it was provided that no channel should be constructed of a less capacity than three hundred thousand cubic feet of water per minute, with a current not exceeding three miles per hour, though a greater capacity would have to be provided when the population should increase. As the population of the district was increasing at a rapid rate in the years succeeding the passage of this act, the trustees wisely determined to provide a channel for a population twice as large as there was at that time, as we shall see.

BOUNDARIES OF THE SANITARY DISTRICT

The boundaries of the Sanitary District lie wholly within the county of Cook, the law, as we have seen, confining such district "within the limits of a single county." The district includes the entire City of Chicago, together with territory lying beyond the city limits on the north and south, as shown on the map. The eastern boundary from Rogers Park to South Chicago is located three miles east of the shore line of Lake Michigan, thus giving the district control over the discharge of sewers into the lake. The total area of the district is three hundred and fifty-eight square miles.

On January 18, 1890, the first meeting of the board of trustees, elected the previous month, was held. The first board was composed of the following gentlemen: John J. Altpeter, Arnold P. Gilmore, Christopher Hotz, John A. King, Murry Nelson, Richard Prendergast, William H. Russell, Frank Wenter, and Henry J. Willing. Murry Nelson was elected president of the board.

TOPOGRAPHY OF THE GREAT DIVIDE

The Commission of 1887, composed of the engineers Hering, Williams and Artingstall, had indicated a waterway as the main feature of a system of water supply and drainage, such waterway to cross the Chicago divide at or near Summit, the lowest point in the dividing ridge between the Chicago River and the Desplaines at Lockport, and to flow from the former river into the latter. The law which was afterwards enacted specified the size of the waterway and the speed and volume of its flow. It now remained for the new board of trustees to decide upon a route for the waterway. Nature had, indeed, limited the choice of a route to a line closely parallel with the old Illinois and Michigan canal, but a new set of difficulties confronted the engineers in the plans for a channel deep and wide enough for the purposes contemplated, not encountered by the engineers of the old canal. It is necessary therefore to make a summary of the topographical and hydraulic conditions of the region before proceeding with a description of its construction.

The Desplaines River takes its rise far to the north beyond the Wisconsin state line, and at Riverside, the nearest point of approach of the Desplaines to the "divide," it is about sixty or seventy miles from its source. At Riverside the bed of the Desplaines is considerably higher than that of the Chicago River some

five or six miles distant, but an elevation of land, that is, the "divide," prevents it from flowing into the latter river, though at times of high water its flood often poured over the divide. The bed of the Desplaines, however, in its southwesterly course rapidly declines, and at Lockport it is considerably lower than Chicago datum.

The South Branch of the Chicago River divides into two forks near Twenty-second street, the West fork and the South fork. The West fork had its source in the swampy lands known as the Mud Lake region. The South fork, a mere bayou at first, was dredged out for navigation purposes as far south as Thirty-ninth street, where it ends. The South fork receives the drainage of the slaughter-houses at the stock-yards, and as it has practically no current its condition is always exceedingly foul. It is locally known as "Bubbly Creek," from the fact that the gases generated in its depth are constantly breaking into bubbles at the surface.

The "height of land" at Summit is twelve feet above Chicago datum. The face of the country shows no rise perceptible to the eye, seeming, apparently, to be as level as a floor. At some remote period in its geological history nearly the entire area now occupied by the city of Chicago was submerged by the waters of Lake Michigan, then some forty feet higher than at present. These waters found an outlet into the Illinois river valley through the low point in the divide at Summit. In the gradual recession of the lake level the water ceased to flow in that direction, but the height of the barrier is so slight as readily to suggest the plan of piercing it with a canal, an idea which the first explorers imbibed as soon as they saw the situation.

SURVEYS FOR THE NEW CHANNEL

Directly after the first board of trustees had organized, Mr. Lyman E. Cooley was appointed chief engineer. He was instructed "to make such surveys and other investigations between the Chicago River and its south branches and forks and Summit as would enable the trustees to select one of not less than four routes for a channel of the dimensions required by law;" also to make investigations in the region between Summit and Lake Joliet. These instructions were given on the 18th of June, and Mr. Cooley at once laid plans of great thoroughness, and proceeded to carry them out. As the expense incurred was considerable some of the members made a protest, and on August 12th the president of the board, Mr. Nelson, called the engineer's attention to the matter. Mr. Nelson said he did not see the importance of setting gauges for the study of the water discharge at various points in the Desplaines valley and elsewhere. "It is quite apparent," he said, "that we differ as to the practical utility of that work, and as I am quite convinced in my own mind that it is an expense which should certainly be deferred, if not avoided entirely, I respectfully suggest that the expense be stopped." Mr. Cooley replied that the work was virtually required under his instructions, and entered a counter protest against the interference.

A few weeks later Chief Engineer Cooley made his first report, in which besides giving a summary of the surveys and investigations so far completed he outlined extensive plans for the future. "A work of this magnitude," said Mr.

Cooley, "demands the most careful and thorough work, and all work hitherto undertaken or projected is upon the most comprehensive scale and by the most exact methods. It is proposed to leave nothing to guess work or assumption." The board, however, became impatient, and the chief engineer was directed "to file within thirty days such a report as would enable the trustees to locate a route as far as Summit." Mr. Cooley replied that he was unable to comply with the order, and soon after the board ordered the suspension of a great portion of the work in which Mr. Cooley was engaged. The tension between the board and the chief engineer increased until, on the 10th of December, Mr. Cooley resigned. Soon after William E. Worthen was chosen as chief engineer, and General John Newton consulting engineer.

CHANGES IN THE BOARD OF TRUSTEES

At the annual election of December 2, 1890, Richard Prendergast was elected president of the board of trustees. A year had passed without any plan having been decided upon, and there was much public dissatisfaction over the delay. In February a report by Engineers Worthen and Newton "indicated that the cost of construction of the smallest channel permitted by law,—fourteen feet in depth through the earth and eighteen feet in the rock,—would be $22,700,000. Auxiliaries would increase the cost to $26,800,000." The trustees declared such a sum could not be raised, and it was not contemplated that the work should cost so much. It was therefore proposed to go to the legislature and ask an amendment to the law, so that instead of requiring a flow of two hundred cubic feet of water per minute for each one thousand of the population, that it should merely require a sufficient flow of water "to carry and dilute all the sewage."

The attempt to amend the law did not meet with favor among the people and the legislature declined to take the action as requested. Meantime both Mr. Worthen, the chief engineer, and General Newton, the consulting engineer, resigned on April 21, 1891. Samuel G. Artingstall was soon after chosen as chief engineer. The board still hesitated to take definite action and it was subjected to severe criticism by the press and the public. It was plain that the board, as it was then constituted, were unwilling to assume the responsibility of choosing a route on the recommendations that had been made. Three members of the board, Murry Nelson, John A. King and Henry J. Willing, resigned later in the summer, and were succeeded by William Boldenweck, Lyman E. Cooley, formerly chief engineer, and Bernard A. Eckhart. Trustee Wenter was elected president at the meeting December 8, 1891. Those in favor of proceeding with the work, as it was prescribed by law, were now in a majority.

DELAY ENDS, WORK BEGINS

The board now began to take vigorous action. As it was yet far from plain what route was best for the channel, and what the cost would be, it was determined to select that part of the route about which there was no uncertainty, and begin the work with as little delay as possible. President Wenter, having arrived at the firm conviction that work must be actually commenced without further delay, recommended in his first message to the board that "the right of way at the lower end of the channel, which would run through rock, be secured at once." It was

evident, he said, that "this portion of the channel would require the longer time for construction, and should be commenced first."

Soon after Chief Engineer Artingstall resigned his position, and on January 16, 1892, Benezette Williams was chosen to that office. Mr. Williams favored a route for the channel which should run "on the south and east side of the Desplaines River, between the river and the Illinois and Michigan canal. It crossed the bends of the river in a few places, but in such a manner that with a small amount of excavation the river channel might be so changed as to protect the new work. The line involved a new location of the Chicago, Sante Fe and California railway for a distance of twenty-two thousand, two hundred feet." With some modifications this line was adopted by the board of trustees, and proposals were asked from contractors for that part of the line, some fourteen miles long, known as the "rock section," extending from Willow Springs to a point near Lockport. This part of the line was divided into fourteen sections, each section covering a distance of about one mile. Contracts were let in July, the total amount of which was $10,696,754.98.

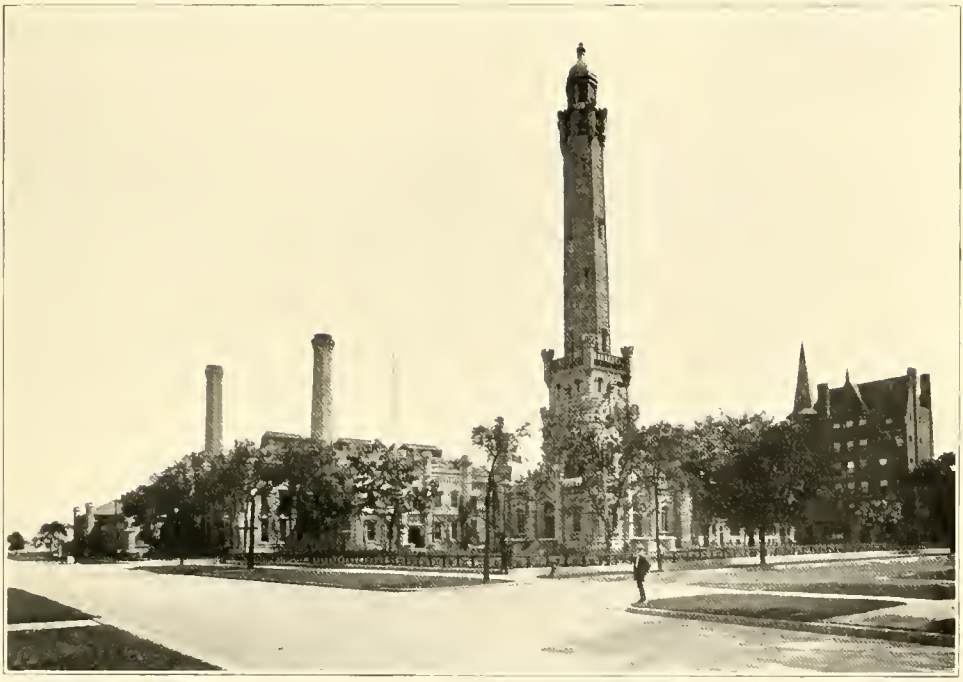
INAUGURATION OF THE WORK

"Shovel Day," as it is known, was on the 3d of September, 1892.[2] On that day the work on the Sanitary canal was inaugurated with appropriate ceremonies. A special train running over the Sante Fe railroad carried about five hundred guests from Chicago to the boundary line between Cook and Will counties, thirty-one miles southwest of Chicago, and two miles below Lemont. A platform had been erected over the center line of the channel, and the first earth was lifted from the two counties.

President Wenter made an address in which he said: "Today, after nine months of energetic work by the present board as organized, we are ready to order practical operations to begin, and we are here to put the shovel in the ground as a token of activity; as a sign to thousands of toilers that employment can be had; as a notice to the people of the Illinois valley that the agreement, ratified by the State, is to be carried out in good faith, as a notice to the country at large that Chicago, through the Sanitary district, proceeds to construct a mighty channel which will rank with the most stupendous works of modern times. . . . The waters on the west within ten miles of her main arteries find their way through the Desplaines and Illinois rivers to the Mississippi. What prevents the blue waters of Lake Michigan from flowing in the same direction? A little ridge called Summit forms the divide, about twelve feet above the level of the lake. This divide we propose to cut through and send the waters of Lake Michigan southward, thereby solving her sanitary problem for all time, and insuring her future growth and prosperity.

"The importance of the work cannot be over-estimated, either from a sanitary or a commercial standpoint. The commercial value of the channel to be constructed is very far-reaching. While the work now planned will not complete a continuous waterway, yet it will only require another link to weld the chain

[2] "Drainage Channel and Waterway," by G. P. Brown, p. 425.



CHICAGO AVENUE WATER WORKS

BEAR TRAP DAM AT LOCKPORT

complete and make Chicago the commanding city over river commerce as well as lake." Mr. Wenter closed his address in these words: "We today, as trustees of the Sanitary District of Chicago, in the presence of many of the officials of city, county, state and the United States, many of its citizens and representatives from the Illinois valley, have assembled on the line of Will and Cook counties, in the valley of the Desplaines, to officially inaugurate this great work connecting Lake Michigan with the Mississippi, to create a condition that undoubtedly in ages gone by existed, to tap the great reservoirs above that will swell and stimulate the sluggish stream of the Illinois, and with proper assistance make it the great waterway from the lakes to the Gulf of Mexico."

At the conclusion of his address, President Wenter stepped down from the platform and raised the first shovelful of earth from its native bed, using a nickel-plated shovel prepared for the occasion.

OTHER ADDRESSES

Mr. Lyman E. Cooley, who had been identified with the project from its earliest inception, then made an address which was listened to with much interest. "We stand here," he said, "on the divide, between these bordering hills of the Desplaines valley, on the floor of the ancient outlet over which but yesterday, in time, flowed the waters of the lake plateau twenty and more feet in depth. Five feet above the Michigan-Huron lake, the water would spill here in storms but for the little alluvial barrier at Summit. . . . We may well marvel at the narrow margin, the strange mischance, which favored the forbidding St. Lawrence Gulf with the lake outflow, and inquire of Nature why we lost our heritage, why she tilted the lake plateau, shifted the outlet and bared the floor of this old pass. . . . Man's creative intelligence can remedy Nature's caprice, restore the ancient outlet; and even more, extend [it] through the continent from fog bank to tropic breeze, as though it were the sea, joining coast, lake and river systems in one whole, as is not possible elsewhere on earth."

Mr. Cooley, at the conclusion of his address, "touched an electric button which fired the first blasts of rock in the bed of the channel. One of these was from a spot five hundred feet west of the platform, and the other, the same distance east of it."

Trustee Eckhart made some remarks on the cost of the channel, and compared it with the cost of other great undertakings. "In this stream," said he, "will be borne away all the sewage which now contaminates our lake, and in the mighty rush of the waters it will be inoffensive and harmless. On the bosom of this great stream will sail the merchant marine of a new world of commerce, of which Chicago will be the queenly metropolis, but which will benefit and enrich every village and town by which it passes." Addresses were also made by Hon. James R. Doolittle of Wisconsin, Hon. Thomas Henderson of Princeton, Hon. Ralph Plumb of Streator, Mayor P. C. Haley of Joliet, and by Ex-Mayor Carter H. Harrison, Corporation Counsel John S. Miller, Dr. Frank W. Reilly, Hon. Thomas C. MacMillan, and Fernando Jones, of Chicago. Mayor Haley of Joliet said that "all the people of the valley and all the people of Joliet are satisfied when the board of trustees honestly and in good faith live up to the letter and spirit of the

law. We expect and we believe that if a channel of the size and capacity which that law requires the trustees to make, is made, and the volume of water turned into it which the law requires, and the sewage diluted before it is turned into the channel as the law requires, that it will not only answer the purpose of Chicago, but that it will also give Joliet that relief which we believe we are fairly and justly entitled to."

Mr. Fernando Jones in the course of his remarks recalled the occasion when work on the old canal was commenced. "On the 4th of July, 1836," he said, "the Illinois and Michigan canal was formally begun by digging and wheeling out a lot of sod." This refers to the time when Mr. Jones, then a stripling, together with other youngsters, had nearly disrupted the programme of proceedings on that occasion, by beginning the work themselves, and thus robbing the older people of all the glory of the affair. While the preparations were being made preceding the turning of the first shovelful of earth, young Jones and his companions had filled a wheelbarrow with "a sacred load of earth," as Gale in his "Reminiscences" relates it, and dumped it before they were discovered. However, nothing of the sort disturbed the proceedings on this occasion, and "Shovel Day," September 3, 1892, thus took its place in the calendar of important dates in the history of the Sanitary canal.

THE SANITARY CANAL OPENED

The period of construction work on the Sanitary canal occupied the time from September 3, 1892, to January 2, 1900, a period of seven years and four months. During this period there were a number of changes in the board of trustees. When the canal was completed the board was composed of the following gentlemen: Frank Wenter, William Boldenweck, Bernard A. Eckhart, Joseph C. Braden, Zina R. Carter, Alexander J. Jones, Thomas Kelly, James P. Mallette and Thomas A. Smyth. Mr. Boldenweek was president of the board.

The most important change during the period of construction was the appointment of Mr. Isham Randolph as chief engineer. The resignation of Mr. Benezette Williams took place on June 7, 1893. On the same date Mr. Randolph was chosen to the position, and he remained as chief engineer until the canal was completed. In fact, he so remained until August 1, 1907, when he retired, and has since held the office of consulting engineer of the Sanitary District.

In the later years of the construction period, sightseers thronged into the empty channel, where it had been completed, and viewed the tremendous work of excavation. Excursion parties from the city and other localities frequently visited the scene. The view in the rock section was especially impressive. Beneath was a level floor of rock, while on either side of the channel rose the perpendicular walls, cut through the stratified layers of limestone, rising to a height of thirty feet or more for many miles. Temporary stairs and ladders were in use at various points to permit of entering and leaving the channel. The long vista between these walls, running true and straight as far as the eye could reach, made an impression on the beholder comparable to that of standing at the bottom of a river canyon in the west.

"On the morning of the 2d of January, 1900," says the record printed in the

Proceedings of the Board of Trustees, "at about 10:35, the barrier which held back the water from the flume, which had been constructed at the south end of the Collateral Channel, was cut, and the waters rushed into the Main Channel. The flow continued thereafter, and at 4:54 on the evening of January 6, the first water passed over the sill of gate number two at the Controlling Works. . . . On Monday, January 15, the dam at Campbell avenue was cut through and the waters on the opposite sides came together at 11:08 a. m. The channel was filled to lake level by Sunday morning, January 14th."

THE GOVERNOR'S PERMISSION GRANTED

Before opening the "Bear Trap Dam" at Lockport, which controlled the water at the lower end of the canal, thus allowing it to flow into the Desplaines river, it was necessary to receive the permission of the governor. The governor of Illinois at that time was John R. Tanner, and he had already appointed a board of commissioners "to make an examination and survey of the Chicago river, and of the Chicago Drainage Channel, to determine whether the said channel had been completed in accordance with the requirements of Section twenty-three of the act, entitled, 'An Act to Create Sanitary Districts and to remove Obstructions in the Desplaines and Illinois rivers.'" This board having certified to the governor "that said channel has been and is now completed in accordance with the law creating said Sanitary District," the permit was granted on January 17th, the third day after the channel was filled and ready to flow.

The governor's permit began with a preamble reciting the facts as above, and continued as follows: "Now, therefore, I, John R. Tanner, Governor of the State of Illinois, do hereby authorize and direct you, the said Board of Sanitary Trustees, to open and let into the said Channel the waters of Lake Michigan and of the Chicago river, and the sewerage of said Sanitary District, and to use and employ said Channel for all the uses and purposes for which said channel was constructed."

The records of the Sanitary District show the following entry in its Proceedings, continuing the account of the admission of the water into the main channel. "On January 17th Governor John R. Tanner accepted the favorable report of the Special Commissioners, and gave permission to open the controlling gates at Lockport. The Bear Trap Dam was used, and at 11:05, in the presence of trustees Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter, the crest of the dam was lowered until a thin sheet of water flowed over it.

"In this position it was held until President Boldenweck introduced Colonel Isaac Taylor, President of the Special Commission, who in a few appropriate words stated the facts relating to the satisfactory completion of the work and the permission granted by the Governor. As soon as he ceased speaking, President Boldenweck gave the word for action. The valves were opened and the massive steel dam settled beneath the torrent which rushed over its crest; and at 11:16 the official act was accomplished, and the flow of the Sanitary Channel was passing into the Desplaines valley."

The flood carried by the great Sanitary Canal, or Main Drainage Channel, as it is otherwise called, was at last set free on its "dark, rolling path to the

sea." The joy and satisfaction of the people of Chicago was extreme over this consummation of the work of nearly eleven years since the law was passed, and of over seven since the actual work began. Throngs of people gathered at the bridges, at windows overlooking the river, on the docks, or from passing street cars, to note the unusual spectacle of the river current setting briskly upstream instead of lying stagnant as before. The pumps at Bridgeport, the only means of handling the sewage up to that time, could scarcely, even at their utmost capacity, do more than hold the river from flowing into the lake, and send an insufficiently diluted stream down the old canal. For days the body of the river showed a steady improvement over its usual foul condition, until the water began to look almost as blue as the waters of Lake Michigan which now flowed in at the river's mouth.

The people of the valley towns and cities below the outlet of the channel, however, looked upon the descending flood with considerable anxiety and apprehension, to note whether the dilution provided by the great increase in flow would neutralize the offensiveness of the sewage carried with it to the extent which had been promised. But they became gradually reassured, after the foulest portion of the flood had passed in the first few days and perceived that the water purified itself to a considerable degree in its movement down the channel, and much more rapidly when spread out over the shallow flats of the river below, just as it had been predicted it would do. Many of the property owners on the river banks below closely observed the effect of an increased flow in the rivers, with the purpose of establishing claims for damages. In fact, a large number of suits were begun against the Sanitary District, and large sums were subsequently paid in settlement of damages for overflowed lands.

CHAPTER XLVIII

CONSTRUCTION OF THE SANITARY CANAL

WORK OF CONSTRUCTION DESCRIBED—DIFFICULTIES WITH THE DESPLAINES RIVER ENCOUNTERED—ROUTE OF CHANNEL DIVIDED INTO WORKING SECTIONS—ROCK EXCAVATION—DIMENSIONS OF CHANNEL—DAM AND SPILLWAY—BEAR TRAP DAM DESCRIBED—VAST QUANTITIES OF SPOIL—METHODS OF WORKING—DIVERSION OF THE DESPLAINES RIVER BED—AUXILIARY WORKS—WIDENING CHICAGO RIVER—STONY ISLAND AVENUE INTERCEPTING SEWER—THIRTY-NINTH STREET CONDUIT— CALUMET AND NORTH SHORE REGIONS—LAWRENCE AVENUE CONDUIT—WILMETTE CHANNEL—BRIDGES OVER THE CANAL—ALTERATIONS AT JOLIET—LOCKPORT WATER POWER PLANT—ELECTRICAL ENERGY GENERATED—TRANSMISSION LINE—DAMS AND LOCKS—BUTTERFLY DAM—ADMINISTRATION OF THE SANITARY DISTRICT—FINANCIAL STATEMENT OF THE DISTRICT—SIXTY MILLIONS OF DOLLARS EXPENDED—ASPECT OF THE CANAL—DEVELOPMENT OF THE WATERWAY—MAIN PURPOSE OF THE CANAL—IMPORTANCE OF WATERWAYS.

HOW THE SANITARY CANAL WAS BUILT

SO far in the course of this narrative the actual work of construction has not as yet been described, though it is perhaps the most interesting portion of the history of the Sanitary Canal. The chief engineer, Mr. Isham Randolph, has from time to time published in pamphlet form descriptions of the canal for popular use, the several editions aggregating eighty thousand copies. Each edition was brought down historically and statistically to the year of its publication. The manuscript for a later edition was prepared which brought the history down to the year 1908. For some reason the Board of Trustees of the District did not make an appropriation for its publication, however. The editor of the *Engineering News* requested permission to publish the report in his paper, and he was permitted to do so. The Sanitary District authorities then ordered ten thousand copies for distribution.

The following account of the work on the canal as it was carried on through its different stages has been quoted or summarized from Mr. Randolph's history of the work, omitting some details, but preserving the essential features of the story.

EARLY STAGES OF CONSTRUCTION

The first work put under contract in the Main Channel in 1892 extended southwest from the Willow Springs Road. These sections were numbered one to fifteen; and had an average length of nearly one mile. Easterly from Willow Springs

Road, the sections were lettered from A to O (omitting J). The lettered sections are, except for a short distance near Summit, entirely in glacial drift.

Sections one to fourteen were put under contract in July, 1892; those from A to F, late in 1892 and early in 1893; and those from G to M in December, 1893. Sections N and O were put under contract May 2, and Section fifteen, August 27, 1894. Earth was first broken on "Shovel Day," September 3, 1892, on the "rock cut" below Lemont.

About thirteen miles of new river channel had to be excavated parallel with the location of the Main Drainage Channel, and about nineteen miles of levee built to divorce the waters of the Desplaines watershed from the channel which is to receive the waters of Lake Michigan, and pass them on to the Mississippi river by way of the lower Desplaines and the Illinois rivers. The width of the River Diversion Channel on the bottom is two hundred feet; side slopes, one to one and a half; grade, generally one and two-tenths per thousand.

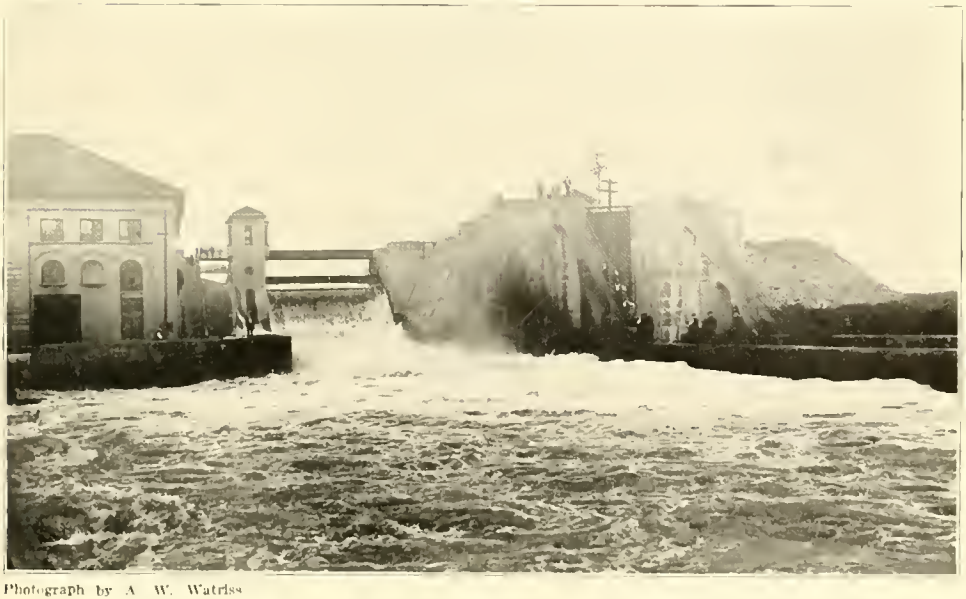
At the head of this river diversion it was necessary to provide a safety valve in the form of a "spillway," to allow surplus water to flow toward Chicago, pending the completion of the work necessary for carrying the entire floodwaters of the Desplaines through Joliet. This spillway is a concrete dam capped with cut stone, and having its wings faced with stone masonry. It is three hundred and ninety-seven feet long, and its crest is sixteen and twenty-five one-hundredths feet above Chicago datum. No water flows over this spillway until the water passing the water gauge above it reaches three hundred thousand cubic feet per minute. This spillway now has been raised to an elevation which prevents any water from flowing over it at any time.

The cross section of the earth sections from A to E inclusive, a distance of five and three-tenths miles, is two hundred and two feet on the bottom; side slopes, two on one. This section extends for about five hundred feet into the west end of F and then reduces to one hundred and ten feet on the bottom, preserving the same side slopes for a distance of seven and eight-tenths miles. The explanation of this change of cross sections is as follows: Throughout the rock sections, and those sections in which there is a preponderance of hard material, or where rock may appear, the section adopted is designed according to law for a flow of six hundred thousand cubic feet of water per minute, which means provision for a population of three million people. The narrower channel provides for the flow of three hundred thousand cubic feet per minute, or for about the present population of Chicago. The enlargement of the narrow channel can be made by the easier methods of excavation, such as dredging, whenever the needs of the city require it.

FURTHER DETAILS OF CONSTRUCTION

The grade throughout the lettered sections is one foot in forty thousand, and the bottom of the Channel at Robey street is twenty-four and forty-five one-hundredths feet below datum. The numbered sections, from one to six inclusive, are underlaid with solid rock. The width of the bottom, in rock, is one hundred and sixty feet. Walls of masonry laid in cement have been built upon the rock surface to a height of five feet above datum. Sections seven to fourteen, inclusive, are in solid rock; the width at bottom is one hundred and sixty feet, and the sides

BUTTERFLY DAM



Photograph by A. W. Watriss

BEAR TRAP DAM AT LOCKPORT, ILLINOIS

are vertical. The prism was taken out in three stopes, with offsets of six inches on each side for each cut, making the top width one hundred and sixty-two feet. The grade in the rock is one foot in twenty thousand.

Section number fifteen is also in rock and its cross section is enlarged at its south end so as to form a "windage basin" in which large vessels may be turned around. The controlling works are located on this section. These works consist of seven "Stoney" gates and a movable "bear-trap" dam by which the flow of water from the Main Channel into the tail race (which is to deliver the outflow into the Desplaines river) can be controlled. This river below Lockport follows the trough of the valley down a steep declivity to the canal basin in Joliet. The fluctuations in Lake Michigan, by varying slope of water surface, will be felt at the controlling works. Provisions have been made to meet these fluctuations within a range of five feet above datum, and twelve feet below, or an extreme oscillation of seventeen feet. The fall from datum at the controlling works to the level of the upper basin is about forty-two feet in a distance of about four and three-tenths miles.

THE BEAR TRAP DAM

The controlling works comprise seven sluice gates of metal (with the necessary masonry bulkheads) and one bear-trap dam. The sluice gates may be considered as a modification of what is known as the Stoney gate type. The gates have a vertical travel of twenty feet on openings thirty feet wide. The bear trap dam has an opening of one hundred and sixty feet and an oscillation of seventeen feet vertically. This dam is essentially two great metal leaves hinged together and working between masonry bulkheads. The down-stream leaf is securely hinged to a very heavy foundation, and the up-stream leaf is so placed as to present a barrier to the water. This structure is operated by admitting water through properly constructed conduits (controlled by valves) beneath the leaves. To raise the crest of the dam, water is admitted from the up-stream side, and the discharge shut off until the desired height is obtained. Then the valves are adjusted so that the volume of water beneath the leaves shall be constant. To lower the crest, the water beneath the leaves is drawn off until the desired height is reached, when the valves are again arranged so as to maintain a constant volume of water.

VAST QUANTITY OF EXCAVATED MATERIAL

The total amount of excavation involved in the construction of the Main Drainage Channel is thirty-eight million, nine hundred and fifty-eight thousand cubic yards, of which nearly one-third is solid rock. To this must be added the material excavated from the river diversion, something over two million cubic yards. The work between Lockport and Joliet, including the controlling works, involves one million, two hundred thousand cubic yards of excavation. The grand total for the Main Channel, river diversion, and Joliet project, was forty-two million, two hundred and twenty-nine thousand cubic yards.

The quantity of "spoil," or material excavated from the bed of the channel, can be imagined more clearly after reading Mr. Randolph's illustration. "The whole volume of spoil, earth and rock, if deposited in Lake Michigan in forty feet of water, would make an island one mile square, with its surface twelve feet above

the water line." The mountainous piles of spoil now visible on the banks of the canal give sufficient evidence of the colossal character of the excavations, the enormous amount of labor required, and the effectiveness of the appliances used in removing it.

SUMMARY OF DIMENSIONS OF MAIN CHANNEL

By ordinance the Main Channel of the Sanitary District begins at Lake street. The plans under which the Chicago river has been improved require a width of two hundred feet; a depth of sixteen feet at dock lines, increasing to twenty-six feet at fifty feet out from the dock; the middle one hundred feet is twenty-six feet deep below the hydraulic grade line with Lake Michigan at datum.

The artificial channel begins at Robey street, six miles from the mouth of the Chicago river. The first division of the artificial channel is seven and eight-tenths miles long (ending at Summit); its minimum depth is twenty-two feet; bottom width, one hundred and ten feet; side slopes, one on two. The second division extends from Summit to Willow Springs, five and three-tenths miles. It is two hundred and two feet wide on the bottom, with side slopes of two on one. The third, or rock, division extends from Willow Springs to the controlling works, fourteen and ninety-five one-hundredths miles; bottom width, one hundred and sixty feet; sides vertical with two offsets of six inches each, giving a width at water line of one hundred and sixty-two feet. At the controlling works there is a fan-shaped basin with an extreme width of five hundred and two feet. From these works to the power plant, two miles, the channel is of irregular width, nowhere less than one hundred and sixty feet. Below the power-house, a width of one hundred and sixty feet is maintained in the channel.

METHODS OF WORKING

On the earth sections some novelties were introduced. On sections L and M, specially constructed cars were loaded by steam shovels and drawn by steam hoists up a steep incline to a proper height, where they ran on to a tipple and were automatically dumped. Each incline was equipped with two four-yard cars, which loaded and dumped alternately. On Sections I and K, the contractors erected bridges spanning the spoil bank at proper height, their supporting piers being carried on trucks which traveled on tracks parallel with the channel. From the channel end of the bridge, an inclined track ran down into the cut. In connection with this device, two eight-yard cars were used; these were successively loaded by steam shovel, drawn up the incline on to the bridge by a steam hoist, and then automatically dumped, and immediately returned to the pit. An output of one hundred cubic yards per hour was probably sustained by this combination of devices.

On Section H, a conveying machine, designed by Hoover & Mason, was constructed on a mammoth scale. It was essentially a bridge spanning the channel, with cantilever arms projecting far enough beyond on each side to overhang the spoil area. On this structure were mounted the necessary sprocket wheels and other machinery for carrying a series of steel pans, which formed the conveyor. The machine was mounted on trucks traveling upon tracks parallel with the channel, and its capacity was five hundred cubic yards per hour. This capacity, however,

was that of the conveyor only; the arrangements for excavating the earth and loading the conveyor were never perfected to an extent which secured recognition for the device as one of the successful inventions applicable to great public works.

On Section F, the material was taken from the steam shovel by cars fitted with pneumatic dumping apparatus, the power for which was supplied from the locomotive. The engineman operated these dump cars just as he would apply the air brakes. Sections A, B and a portion of C are located in the old channel of the Desplaines river, and were overlaid with muck to a considerable depth. This muck was removed by hydraulic dredges. Each of these dredges had a capacity of about twenty-five hundred cubic yards in ten hours, and this output in solid matter represents about eight per cent of the capacity of the pumps. One great advantage of the hydraulic method of removal is that the material can be removed to any desired dumping ground within a distance of three thousand feet without adding anything to the contract price of the excavation.

On those sections which are partly in earth and partly in rock, all of the usual methods of removing earth were employed, varied to suit the peculiar conditions or to meet the ideas of the contractors doing the work. On Section number six, a large amount of muck had to be removed, and a very ingenious contractor improvised a hydraulic dredge at a small cost, and did the work at a very moderate expense.

THE ROCK SECTIONS

On the rock sections the sides were cut down vertically by channeling machines, and the merits of several devices were satisfactorily demonstrated on this work.

A channeling machine is a great chisel clamped to the free end of a piston rod of a vertical engine. Its office is to cut a deep, wide gash down into the solid rock on the line of the edge of the channel. The machine consists of a vertical boiler and engine mounted on a heavy car which moves automatically back and forth on rails laid alongside the edge of the canal. As the chisel works up and down, the car slowly moves forward and back until the huge chisel has buried itself from four to six feet in the rock.

"Channeling" is done in connection with air or steam drills, which drive holes a few feet apart across the work, from one side to the other. Dynamite cartridges are placed in the holes and exploded by electricity. The effect is to blow forward a cross-section of the work. The gash cut by the channeling machine facilitates this operation and at the same time gives a smooth finish to the sides of the rock cut.

The cableways as first constructed were not very successful, but experience gained upon this work resulted in improvements from time to time, until by the adoption of a simple improvement, devised by Mr. H. C. Locher, one of the contractors, they were brought to a stage of efficiency which made them worthy competitors of the cantilever conveyors. The high power derricks used upon two of these sections did not come up to the expectations of the builders, and their use was confined to the machines already in place. The revolving derricks on Section fourteen, after a great deal of costly experimentation, developed considerable

merit. The cantilevers are probably the most perfect devices now known for hoisting and disposing of material from rock cuttings such as these.

AUXILIARY WORKS

The primary object of the work undertaken by the Sanitary District is the protection of Lake Michigan (the great reservoir from which the city of Chicago and its urban and suburban neighbors draw their drinking water) from sewage pollution due to the discharge directly into it, or into the rivers which empty into it, of the sewage of the city of Chicago and its aforesaid neighbors. The first work undertaken was the construction of a great canal from Chicago (at Robey street) to Lockport. That done, the logical sequence was the improvement of the Chicago river by deepening and widening and removing bridge obstructions so as to make it possible to secure an adequate flow of water through it without injury to navigation.

WIDENING THE CHICAGO RIVER

The distance from the mouth of the Chicago river to Robey street (the junction of the Main Drainage Channel with the west fork of the South Branch of the river) is six miles. From Lake street to Robey street the channel is to be widened to two hundred feet and given a depth of twenty-six feet, for a mid-channel width of one hundred feet, shallowing up to sixteen feet at the dock lines. The standard docks are of timber secured to anchor piles thirty-eight feet back from the dock face. The District has constructed a concrete dock on the west side of the river extending from Randolph street to Madison street. This is the first permanent dock ever built on the Chicago river.

Much work has been accomplished in executing the plans of the District for river improvement. Up to May 31, 1908, 488,650 square feet of land had been acquired for widening, nearly all of which has been excavated by dredging and the frontage docked. The dredging thus far aggregates 2,935,691 cubic yards, and the docking 10,822 lineal feet. Eleven bascule bridges have been completed, one of which is a double-track railway bridge of two hundred and seventy-five feet span between points of support. The bridge at Ashland avenue is a trunnion bascule, of a type invented by John W. Page; all of the others are of the Scherzer "rolling-lift" type.

While the Sanitary District of Chicago has been carrying on its great work, the city of Chicago has been reversing sewers which discharged into the lake and discharging them into the Chicago river, this involving the building on Thirty-ninth street, from the lake to the east end of the stock yards slip at Halsted street, of a conduit twenty feet in diameter. Along Stony Island avenue and the lake shore, from Seventy-third street north to Thirty-ninth street, the city has completed an intercepting sewer increasing in diameter from twelve and one-half feet at the south end to sixteen feet at the north end. This intercepts the sewers which previously discharged into the lake. It leads to the twenty-foot conduit on Thirty-ninth street, just mentioned, extending from the lake to the east end of the stock yards slip (Chicago river) at Halsted street.

At the lake end the city has constructed a pumping plant with four sewage pumps. These pumps are to be operated by the Sanitary District. On its part

the District has erected two pumps in addition to those erected by the city for the purpose of pumping lake water. The total pumping capacity of these six pumps is one hundred and twenty thousand cubic feet of water per minute, discharging into the Thirty-ninth street conduit. From the conduit the diluted sewage flows into the Chicago river and unites with the flow down the Main Drainage Canal.

THE CALUMET AND NORTH SHORE REGIONS

What has been described, however, does not embrace the whole problem of sewage and water-supply. On the south there is a large urban and suburban population fouling the Calumet river, which discharges into the lake within three and five-eighths miles of the Hyde Park four-mile water-supply crib. On the north, beyond the limits of the original Sanitary District, still other urban and suburban populations are discharging their sewage into the lake.

The Legislature of 1903 enacted laws for the annexation of these adjacent territories. On July 14, 1903, this legislation became operative and the original Sanitary District, which contained one hundred and eighty-five square miles, was enlarged by the annexation of the North Shore District (seventy-eight and six-tenths square miles), and the Calumet District, (ninety-five and forty-eight one-hundredths square miles.) Thus the total area of the Sanitary District today is three hundred fifty-eight and eight one-hundredths square miles.

The topography and hydrography of the North Shore district precludes a gravity flow through channels ending so far up the North Branch, and it is therefore provided in the plans, now approaching completion, that both the channels described below shall be supplied with pumping works.

THE LAWRENCE AVENUE CONDUIT

The Lawrence Avenue conduit has a capacity of thirty-five thousand cubic feet of water per minute. This conduit is sixteen feet in diameter, and extends the full length of Lawrence avenue from the lake to the river, a distance of two and one-half miles. The water to flow through this channel must be supplied by pumping, and for that purpose a pumping plant, having a capacity of sixty thousand cubic feet per minute—that is nearly twice what would be required for a normal flow,—has been erected at the intersection of Lawrence avenue and the tracks of the Chicago, Milwaukee & St. Paul railway, twenty-four hundred feet from the lake. This conduit and pumping plant were constructed and paid for by the city of Chicago, but will be operated and maintained by the Sanitary District.

THE NORTH SHORE CHANNEL

The North Shore Channel, often referred to as the Wilmette Channel, has its lake connection in the southeast corner of Wilmette, and its course from thence is generally southwest, passing through the northern part of Evanston, and connecting with the North Branch of the Chicago river at Lawrence avenue. Thus the river terminus of the Lawrence Avenue conduit and that of the North Shore channel are in close proximity with each other. The latter has a total length of eight and one-half miles. It is forty feet wide at the bottom, and the depth

of water is twelve feet. The water supply for this channel is of course secured from Lake Michigan by means of powerful pumps located near the lake end of the channel. The pumps are operated by electricity supplied from the great generating works at Lockport, nearly fifty miles distant, the current being carried on steel masts especially designed for the purpose. The volume of water pumped averages sixty thousand cubic feet of water per minute. The sewage of Evanston and other North Shore towns is to be diverted into this channel which, however will require some years to carry into effect. The North Shore Channel will permit of barge navigation, access being afforded through a lock constructed alongside of the barrier at the pumping works.

The following interesting description of the North Shore Channel is taken from President McCormick's message for November, 1910:

"After a careful consideration of the physical conditions along the route of the proposed North Shore Channel, a few changes were made from the old ordinance. The purchase of the first piece of right of way was made June 26, 1907, and construction work was started on 'Shovel Day' at the Wilmette end of the channel, but the actual work of construction was not started until the month of April of the following year, when a steam shovel and cars were installed and the excavation of the Wilmette end of this channel was started. As fast as right of way was procured contracts were awarded along the whole length of the channel, a distance of about eight and one-half miles. The result is that the work has been completed in three seasons, which is remarkable progress when it is considered that the last piece of right of way was procured for the construction of this channel in the latter part of June, 1910.

"The work of constructing this channel through Evanston and Wilmette, a distance of one and one-half miles, was done by day labor by the Sanitary District for the reason that this part of the channel runs through the residence district of these north shore towns, and on account of the incomplete records it was impossible to specify the work in sufficient detail so that a contractor could intelligently bid on it; and for the further reason that the Sanitary District desired to inconvenience the residents of this district as little as possible under the circumstances as, at the best, the construction of a channel of this kind through a residence district is bound to be of considerable annoyance to the people in the vicinity. It is a pleasure to state, however, that very few complaints have been received from the officials of these municipalities.

"Although the side slopes of this channel were designed according to the best modern practice, there occurred during the construction several slides which were removed, with the exception of one which still remains in the channel. It has been the history in the construction of all canals of this kind, including the Main Drainage Channel, the Panama Canal, the Hennepin Canal and the Barge Canal of New York State, that slides have occurred where the channel has been dug through clay in spite of every precaution that could be taken. In some cases slides or breaks have occurred where the channel was practically through solid rock. It is impossible to foresee where these slides will occur and it is also impossible to tell the reason of the slides in some cases, even after they occur. The reason for these slides on the North Shore Channel, as near as can be determined, is that there are several stretches of very soft clay, often 20 or 30 feet below the

surface of the ground, which is not of sufficient consistency to sustain the material above it, and the material taken from the channel which is spoiled upon the banks. This is particularly so in the vicinity of the Chicago & North-Western Railway bridge at Mayfair where the slide has been left in the channel and will have to be removed, after the water has been turned in, by means of dredges and scows, as the banks of the channel are now so loaded with material as to render it unsafe to place more weight upon them.

"The sides of a channel are not nearly so apt to cave when the channel is filled with water as when it is empty, for the reason that the water produces a pressure against the sides of the channel which tends to hold the banks in place. Most of the damage that occurs in channels of this kind occurs when the channel is empty and the sides are exposed to the continual freezing and thawing during the winter months. . . .

"Comparing the cost of excavation work on this channel with the cost of similar work on the Main Drainage Channel, it is a pleasure to state that with the improvement of methods of excavation since the time of the construction of the Main Drainage Channel, the average cost of this work has been a little over 20 cents per cubic yard as against 29 cents per cubic yard, the cost of similar work on the Main Drainage Channel, a saving of 9 cents per cubic yard, the result being that the channel has been completed considerably under the cost of the original estimate.

"Water was turned into the North Shore Channel on November 29, 1910, but it will probably be some time before the pumps can start to work, for the reason that the contract for these pumps provides for an elaborate test which will take some time to make, the result of which test will determine the price to be paid for the pumps. The test could not take place before the water was turned into the channel."

THE CALUMET-SAG CHANNEL

The topography and hydrography of the Calumet District admit of treatment that will secure a reversal of the current of the Calumet river and a gravity flow therefrom into the main channel of the Sanitary District through the depression known as the Sag Valley. Surveys have been made and a channel partially located which will accomplish the purpose. The tentative plans for this channel contemplate that it shall be seventy feet wide at the bottom in earth and ninety feet in rock, with side slopes in earth of three on five, and a depth of twenty-two feet below hydraulic grade line.

BRIDGES OVER THE CANAL

All the bridges on the Main Channel are designed to be made movable structures when eventually required as such. There are six bridges for public highways. One was built for the use of the Southwest boulevard and Western avenue. It has double roadways, one for heavy and the other for light traffic. There are seven railway bridges, one being an eight-track rolling-lift structure, with a channel span of one hundred and twenty feet. One is a four-track swing bridge, and the others are double-track structures. The bridges on the walled and solid rock sections of the channel are all "bob tail" (or with arms of unequal length), counterweighted structures, with pivot piers on the right bank, and the long arms spanning the entire channel, thus avoiding any obstruction to the flow from

center and protection piers. These bridges conform to the heaviest modern specifications. The entire weight of the iron and steel used in their construction was upwards of eleven thousand tons.

Although all of the bridges on this channel are designed as movable structures, yet the law allowed the District to keep them closed and used as fixed structures for a period of seven years, dating from January 17, 1900. At the expiration of that period they were to be equipped with operating machinery and go into service as movable bridges. Up to the present time, however, the equipment of the main channel bridges with operating machinery has not been accomplished.

ALTERATIONS AT JOLIET

The work of the Sanitary District beyond the controlling works at Lockport consisted of straightening, widening and deepening the Desplaines river, to give it a flowage capacity of one and a half millions cubic feet of water per minute. In the city of Joliet dams across the river already existed. Two of these had been constructed for the old Illinois and Michigan canal, which crosses the river at that point. Extensive alterations were here required involving the rebuilding of dam "number one," the removal of dam "number two" and the "Adam dam," and the "guard lock."

The stone arch bridge at Jefferson street was removed to make way for a steel structure of greater span and of width equal to that of the street. The Cass street bridge also gave place to a modern steel structure of greater span and width. From Lock number five to Jefferson street, a massive concrete retaining wall has been constructed, extending from Jackson street to Jefferson street. At Jackson street a great deal of costly excavation has been made to admit of an extensive water power development, which is the property of the state.

THE LOCKPORT WATER POWER DEVELOPMENT

From the date of the lowering of the bear-trap dam, January 17, 1900, until August 30, 1907, the water flowing through the Sanitary Canal escaped over that dam or through the Stoney gates at the controlling works, and a great potentiality ran to waste. The legislative enactments of 1903 made it possible to stop this waste. The plans for water power development were adopted, and on October 7, 1903, bids were opened covering the extension of the Main Channel as a waterway and power canal for four miles south from the controlling works. Contracts were let and a vigorous prosecution of the work was entered upon. For two miles this extension was between walls and massive clay embankments, heavily faced with rip-rap. The power-house was located at the end of this stretch, where a drop of thirty-four feet was available under average conditions.

The channel above the power-house is of varying width and nowhere less than one hundred and sixty feet. All of the area available was taken into the channel so as to impound water for lockage purposes and so minimize possible fluctuations of head due to taking water into the locks. The structures at the end of this first stretch of ten thousand, six hundred and four feet are ice fenders, penstocks, power-house, movable dams and canal lock. The channel below the power-house is three hundred and thirty-six feet wide where the tail water discharges, nar-

VIEW OF STATE STREET NORTH FROM VAN BUREN STREET

STATE STREET NORTH FROM MADISON STREET

rowing in eight hundred and fifty feet to one hundred and sixty feet, and a minimum depth of nineteen and seven-tenths feet. These dimensions are held for six thousand feet to a junction of the Desplaines river channel, where the depth is only ten feet; but the total width is four hundred feet.

DETAILS OF POWER PLANT

The power plant is located on the west side of the channel and the entrance to the forebay is protected by an ice fender consisting of a massive concrete wall carried upon fourteen submerged concrete arches of nineteen feet span, built on a skew. The entrance to the penstocks is guarded by the usual iron gratings. There are nine penstocks thirty-two feet wide, seventy-four feet long and twenty-eight feet high from floor to intrados of arch.

The central penstock is devoted to the exciter equipment containing three exciter units. They have thirty-inch Jolly-McCormick wheels. The installation in the four west penstocks was made by the Wellman-Seaver-Morgan Company, of Cleveland; each unit consists of six Jolly-McCormick fifty-four inch runners (wheels) upon a horizontal shaft. This shaft is twelve inches in diameter, seventy-one feet, five inches long, and is made in three sections. The outer section is of open-hearth steel, the middle section of nickel steel and the inner section of nickel steel annealed. The requisite strength for the parts is thus secured by the quality of the steel rather than by increasing the weight of metal. The shafts revolve in oiled bearings, the oil being in constant circulation by means of a pumping system. Inspection tubes give free access to the bearings at all times. This is the first installation using six turbine runners on a horizontal shaft.

The draft tubes are of original construction, molded in concrete, designed to discharge the water with a minimum of disturbance and consequent loss of head. The bulkheads of the penstocks form the north wall of the power-house. The building is seventy feet wide, three hundred and eighty-five feet long and forty-seven feet high. It is built wholly of concrete, the superstructure being of concrete blocks. The roof is of red tile. The architecture is dignified and impressive. This house contains the electrical machinery, exciters, generators, transformers, switchboard, etc.

The exciters and generators were supplied by the Crocker-Wheeler Company, of Ampere, New Jersey. These generators are connected directly to the turbine shafts by suitable couplings.

ELECTRICAL TRANSMISSION

The current is stepped up to forty-four thousand volts and transmitted to the transformer house at Western avenue and the Canal in Chicago, a distance of twenty-nine and one-half miles. There the current is stepped down to twelve thousand volts for distribution to twenty-three sub-stations. The electrical energy developed at the power house is equal to forty-two thousand horse power. The line over which the current is carried is recognized by engineers as the finest example of modern high-tension transmission to be found anywhere.

The towers are sixty feet high, set in concrete, and built of steel angles and lattice bars, galvanized. Each of the towers have two steel cross arms also of

riveted lattice construction and galvanized, carrying six insulators of umbrella type. There are nine aluminum wires, each five-eighths of an inch in diameter, used for transmission. The spacing of the insulators keeps the wires seventy-two inches apart. Power can be transmitted over any combination of three wires, so that seven of the nine wires must be broken or grounded before the supply of current would be stopped. The towers are placed three hundred and fifty feet apart on straight lines, where there are changes of direction they are placed nearer together.

The territory covered by the Sanitary District's lines extends south to Dolton and Joliet, west to McCook, north to Wilmette and east to Lake Michigan. The longest distance to which power is transmitted from the generating station is about fifty miles. Supplying electrical current for both lighting and power purposes by the Sanitary District, by means of the water power at Lockport, is one of the most hopeful attempts heretofore made to carry on an enterprise under the plan of public ownership.

DAMS AND LOCKS

There are two movable dams adjacent to, and east of, the power-house at Lockport. They were designed by Mr. Ernest L. Cooley. Their simplicity is admirable and their operation most successful. One of these dams is an outlet from the forebay; it has a length of twelve feet on the crest. The other one, forty-eight feet long on the crest, is an outlet for the channel. The vertical range of these dams is fourteen feet.

The canal lock is of the dimensions prescribed by the legislature of 1903; twenty-two feet wide, one hundred and thirty feet long between miter sills, and with twelve feet of water over the sill. This is a concrete structure and is the highest lift lock yet built. The lift will at times be as high as forty feet; the mean lift will be about thirty-six feet. There are some novel features about this lock in the way of gate operating mechanism and filling and emptying valves. Space has been reserved for the building of a lock of proper dimensions for the larger navigation of the deep waterway.

THE BUTTERFLY DAM

The creation of the water power resulted in holding a great body of water at an elevation of nearly forty feet above the level of a large area in Joliet, about two miles away. While all of the structures which hold this water up are of ample strength to insure the safety of the people down-stream, yet the authorities of the Sanitary District were willing and anxious to make "assurance doubly sure," and to that end they caused the Butterfly Dam to be built at the entrance to the water power extension, after a design by the chief engineer. This device affords a prompt and effectual method of shutting off the water in case of accident, but under normal conditions is no barrier to navigation.

This dam, which is described below, is the only one of its kind in existence. Its efficiency and ease of operation have been abundantly demonstrated. The dam went into service at three a. m. August 27, 1907, when the cofferdam which held back the waters of the main channel was blown up. On August 30, at 1:45 p. m.,

the filling of the channel below the dam was commenced, the twelve valves in the dam being opened for that purpose.

In the figure is shown the general design and arrangement of the Butterfly Dam which resembles a large steel lock gate, pivoted at the center instead of at the sides. It lies normally in the center line of the channel, leaving a navigable pass on each side. When in this position its ends are protected by concrete piers, and a fixed bridge is built between these piers to hold the top pivot of the dam. The bottom pivot is in a steel frame let into the rock bottom of the channel to a depth of forty feet. In the dam are sets of small valves (A and B) each six feet, four and one-fourth inches long and four feet, one inch high.

Ordinarily the dam is open under the service bridge or brace span. To close the channel, the dam is started by rack and pinion mechanism which throws it into the current. At this time the six valves (A) are opened and the six valves (B) are closed, so that the current acts against a larger closed area on the (B) side than on the (A) side. The dam is then swung across the stream into the position shown in the plan, thus closing the channels. To open the channel again for navigation, the valves (B) are opened and the valves (A) are closed. This throws the greater pressure on the (A) side which swings the dam back to its open position. The operating mechanism is at the center.

A tunnel for the use of the operator extends from the west abutment to the north pier. When the dam is in service and the lower channel is empty, the pressures are 1,739,000 lbs. on the top pivot and 3,776,000 lbs. on the bottom pivot. This bottom pivot is thirty-two inches in diameter. The dam is one hundred and eighty-four feet long and thirty feet and one inch high. The weight of the dam proper is seven hundred and ten tons. The total weight of steel in the structure is one thousand and eighty tons.

ADMINISTRATION

The nine trustees composing the board of the Sanitary District are elected by popular vote. The Sanitary District forms an independent organization separate and distinct from the municipal government of Chicago. They may levy and collect taxes for carrying on the work intrusted to them up to one per cent of the assessed value of the taxable property within the corporate limits of the District. By an amendment passed in 1895, this power was increased to one and one-half per cent for a period of three years, beginning with the year 1895. Subsequently, as it appeared that the District would not have sufficient funds to complete the work, the Trustees procured the passage of an act in 1897, extending the levy of one and one-half per cent for two years more, or until and including the year 1899. They may issue bonds to the extent of five per cent of the value of the taxable property of the District as determined by the current assessment for state and county taxes previous to the issue of said bonds.

This outline of the work shows that the primary purpose in the construction of the Sanitary Canal is sanitation, and that in attaining that vital object it provides an artificial waterway of great utility, and develops water power of immense value. Sanitation, navigation and industrial development are the visible results of the vast expenditure made by The Sanitary District of Chicago.

In a pamphlet descriptive of this great work, recently published by the Sani-

tary District, the following statement is made: "It is no exaggeration to say that the Chicago Sanitary and Ship Canal is one of the greatest artificial waterways ever constructed. Other canals may have cost more, and they may exceed this in depth, but this canal has a greater cross section than any other. None presented half the difficulties which were encountered and overcome in this undertaking, but to this work neither the general government nor the State of Illinois has yet contributed a single dollar."

THE SANITARY DISTRICT OF CHICAGO

Summary of Net Receipts and Expenditures from Organization to December 31, 1910.

RECEIPTS.

Taxes collected			$45,752,651.55
Bond Account—			
First issue	(bonds outstanding)	$ 200,000.00	
Second issue	(bonds outstanding)	600,000.00	
Third issue	(bonds outstanding)	600,000.00	
Fourth issue	(bonds outstanding)	1,000,000.00	
Fifth issue	(bonds outstanding)	240,000.00	
Sixth issue	(bonds outstanding)	280,000.00	
Seventh issue	(bonds outstanding)	200,000.00	
Eighth issue	(bonds outstanding)	190,000.00	
Ninth issue	(bonds outstanding)	500,000.00	
Tenth issue	(bonds outstanding)	500,000.00	
Eleventh issue	(bonds outstanding)	1,250,000.00	
Twelfth issue	(bonds outstanding)	1,200,000.00	
Thirteenth issue	(bonds outstanding)	900,000.00	
Fourteenth issue	(bonds outstanding)	975,000.00	
Fifteenth issue	(bonds outstanding)	975,000.00	
Sixteenth issue	(bonds outstanding)	1,552,000.00	
Seventeenth issue	(bonds outstanding)	416,000.00	
Eighteenth issue	(bonds outstanding)	444,000.00	
Nineteenth issue	(bonds outstanding)	444,000.00	
Twentieth issue	(bonds outstanding)	888,000.00	
Twenty-second issue	(bonds outstanding)	1,776,000.00	
Twenty-third issue	(bonds outstanding)	944,000.00	
Twenty-fourth issue	(bonds outstanding)	2,500,000.00	
Twenty-fifth issue	(bonds outstanding)	500,000.00	
Twenty-sixth issue	(bonds outstanding)	1,000,000.00	
			20,074,000.00
Deposit on purchase of twenty-seventh issue of bonds			50,000.00
Interest on bank balances			426,227.80
Electrical Department, Interest Account			56,278.58
Dock and Land Improvements and Rentals Account			224,378.48
Tax Levy 1896 (warrants outstanding)			1,932.04
Deposit on Contract for Stone			2,500.00
			$66,587,968.45

EXPENDITURES

Right of Way, North Branch, Chicago River		$ 17,150.00	
Right of Way, South Branch, Chicago River		5,224,477.51	
Right of Way, North Shore Channel		1,203,435.05	
Right of Way, Main Channel and River Diversion		3,107,392.46	
Right of Way, Calumet-Sag Channel		52,303.23	
Right of Way, South of Joliet		11,826.56	
			$ 9,616,584.81
River Diversion Construction		$ 1,055,806.98	
Bridge Construction, River Diversion		142,486.20	
Main Channel Construction		19,331,786.77	
Bridge Construction, Main Channel		2,546,244.49	
Controlling Works, Lockport		331,253.65	
Bridge Coostruction, Controlling Works		7,873.35	
Joliet Project		1,308,251.12	
Bridge Coostruction, Joliet Project		276,386.76	
Illinois and Michigan Canal Improvement at Bridgeport		77,016.08	
Chicago River Dredging, Docking, etc		2,383,254.34	
Bridge Construction, Chicago River		3,019,536.71	
Wilmette Pumping Station		231,444.21	
Thirty-ninth Street Pumping Station		552,444.75	
West Thirty-ninth Street and Western Avenue Sewers		157,247.48	
North Shore Channel Construction		978,093.36	
Contract Section No. 7, North Shore Channel		90,909.53	
Bridge Construction, North Shore Channel		483,974.77	
Calumet-Sag Channel Construction		466,032.81	
Bridge Construction, Calumet-Sag Channel		1,590.93	
Lowering LaGrange and Kampsville Dams		20,803.76	
Raising Roadway of Brandon's Bridge		5,890.68	
Water Power Development at Hickory Creek		6,570.70	
Warehouses Nos. 1 and 2 on Western Avenue		22,592.99	
Sewage Disposal Experiments		21,920.51	
			33,519,412.93
Capitalization and Maintenance of Bridges		$ 403,354.60	
Bridgeport Pumping Works		90,388.80	
Maintenance of Highway Bridges		30,399.01	
Maintenance and Operation Account		308,969.13	
			833,111.51
Electrical Department			4,144,844.13
Interest on Bonds		$10,618,228.54	
Interest on Tax Warrants		468,453.69	
Discount and Interest on Loans		25,004.67	
			11,111,686.90
Taxes on Land, Cook County		$ 93,311.58	
Taxes on Land, Will County		69,046.50	
Taxes on Land, DuPage County		1,870.42	
			164,228.50
Land Damages		$ 133,838.43	
Marine Damages		15,473.16	
			149,311.59

Engineering Department	$ 2,946,836.53	
Clerical Department	242,918.85	
Law Department	1,346,520.51	
Treasury Department	54,812.30	
Police Department	480,484.39	
General Account	1,248,755.95	
		6,320,328.53
State Inspection of Main Channel		33,075.97
Personal Injuries Account		5,533.20
Machinery and Tools Account		75,674.72
Advanced on Contracts in Litigation		119,887.38
Total expenditures		66,093,680.20
Due from Stone Contracts	$ 8,685.45	
Emergency funds in the hands of department officials	40,800.00	
Balance in hands of Treasurer	444,802.80	
		494,288.25
		$66,587,968.45

LIFE SAVING DEVICES

It became apparent to the authorities after the canal was filled with water that it was a serious menace to life on account of the exposed character of its margins. Especially was this true in that part of the canal which was cut through the rock and where cement walls had been constructed. It was evident that a person, heedless or unfortunate enough to fall into the canal along that portion where the sides were perpendicular, would have no chance to escape by climbing out, and he must inevitably perish unless help was at hand. Even if he were a good swimmer his chance would be slender as the walls are continuous for many miles together.

In an editorial in one of the papers was contained a warning of these conditions, and it was recommended that a series of ladders be attached to the walls at proper intervals as a means of rescue or escape. "It will be very much better for the canal commissioners," said the editor, "to do this before there is loss of life. It is almost criminal to leave the canal in its present condition." The trustees were alive to this danger and provided a cable or life line looped up a short distance above the water line along both sides throughout the entire distance of the rock cutting. At intervals there are also placed safety ladders, like fire escapes at the sides of buildings, and in the event that a person falls into the canal it is possible for him, if able to reach a life line, to work along hand over hand until a ladder is reached.

That this precaution has been effective is shown by the fact that the records show that no loss of life has occurred from accidents thus guarded against. Cattle, grazing too closely to the brink of the canal, have occasionally slipped into the channel, but they have usually been rescued by means of extemporized hoisting tackle without much difficulty.

"Floaters," that is the bodies of unknown persons, have often been recovered from the channel, such bodies evidently having been those of persons drowned in the Chicago river. In such cases the coroner has made the usual inquest, and an appropriate verdict found.

ASPECT OF THE SANITARY CANAL

In the years intervening since its completion the banks of the Sanitary canal have become covered with an abundant growth of young trees,—willows, silver poplars and cottonwoods—which give the vicinity an attractive and rural aspect greatly in contrast with the bare and desolate appearance it originally possessed. Throughout the entire region through which the great canal passes the general aspect of the country is apparently level, the actual rise of the surface at the

summit or height of land being imperceptible to the eye, and it can only be measured by instruments of precision. From the point where the canal begins its course on the South Branch of the Chicago river an observer can look far to the south and east and behold an unbroken stretch of prairie, except as interrupted by structures of one kind and another, this level surface being a part of the "Grand Prairie of Illinois."

DEVELOPMENT OF THE WATERWAYS

"The great Sanitary and Ship Canal is the forerunner of what the people of the Middle West hope one day will be the beginning of a ship waterway clear to the Gulf of Mexico," wrote Mr. Hoyt King, in the "World To-Day," for April, 1907. "It is around this so-called big ditch that the campaign for a deep waterway is being carried on. For years, the deep waterway to the gulf has been a dream. It was for the present age to give it an impetus by organization and exploitation. Public sentiment in the towns along the Desplaines river, the Illinois river and the Mississippi, was first aroused by mass meetings, out of which grew little organizations, later developing into one great organization called the Lakes to the Gulf Deep Waterway Association, having its principal offices at St. Louis."

As the result of the campaign thus begun and carried on an amendment to the state constitution was proposed to the people and ratified at the general election November 3d, 1908, granting power to the General Assembly to issue bonds to the amount of twenty millions of dollars to provide for the construction of a waterway.

TEXT OF THE CONSTITUTIONAL AMENDMENT

The constitution contains this prohibition: "The General Assembly shall never loan the credit of the State or make appropriations from the treasury thereof in aid of railroads or canals."

The section of the constitution above referred to was amended by the addition of the following proviso, namely: "Provided further, that the General Assembly may, by suitable legislation, provide for the construction of a deep waterway or canal from the present water power plant of the Sanitary District of Chicago, at or near Lockport, in the township of Lockport, in the county of Will, to a point in the Illinois river at or near Utica, which may be practical for a general plan and scheme of deep waterway along a route, which may be deemed most advantageous for such plan of deep waterway; and for the erection, equipment and maintenance of power plants, locks, bridges, dams and appliances sufficient and suitable for the development and utilization of the water power thereof; and authorize the issue, from time to time, of bonds of this state in a total amount not to exceed twenty million dollars, which shall draw interest, payable semi-annually, at a rate not to exceed four per cent per annum, the proceeds whereof may be applied as the General Assembly may provide, in the construction of said waterway and in the erection, equipment and maintenance of said power plants, locks, bridges, dams and appliances."

THE MAIN PURPOSE OF THE CANAL

The primary purpose in building the Sanitary Canal was to furnish the people of Chicago with a pure water supply. From its very inception it was so intended.

the idea of a waterway being entirely subordinate to that of sanitation. The commercial need of a deep waterway, from Lake Michigan through the valley of the Illinois and the Mississippi rivers to the gulf is great, and it is not surprising that its utility for navigation has seemed to many of more importance than for its primary purpose.

However, we find in President R. R. McCormick's message of 1909, that the thought uppermost in his mind is that of the utility of the Sanitary canal in furnishing a pure supply of water by diverting the drainage of the city down the great channel to the river valleys below. "Whatever views may be entertained upon its success as a waterway," says McCormick, "there can be no denying its extraordinary efficiency as a disposer of sewage. I believe it is generally supposed that the introduction of lake water is made solely for the purpose of diluting the sewage to a condition where it is no longer violently objectionable. This it accomplishes within the limits of the city. Its greatest work is performed in the succeeding forty miles, in which stretch it practically destroys all trace of solid and organic matter, and even those bacteria which are the constant menace of all water supplies."

IMPORTANCE OF WATERWAYS

"The increasing congestion of traffic during the last five years," says Hoyt King, "has turned especial attention to the need of inland ship waterways as well as increased railroad facilities. Limited trackage, shortage of cars, delays incident to crowded terminals, and uneconomic conditions for the unloading and transfer of freight, are alleged causes for much of the congestion. The mighty resources of our great western country are tied up. The country is paralyzed in its lower limbs, said Secretary Stone of the Chicago Board of Trade. 'With the development of irrigation and the increased productiveness of the soil, the wealth of resources in the West is even now feeling the effect of failure to get to market. It is essential that transportation methods keep pace with this development, if the resources of the country are to be availed of.'"

A comparison of the Sanitary canal with other great works of a similar character is instituted by President McCormick in his message for 1909:

"As a navigable channel it has been customary to compare the Drainage Canal to the Manchester Ship Canal. With all deference to my friends who have adopted this view, I am compelled to see the matter in another light. Manchester is a city of the inland, which built a canal to the sea coast. Chicago is a city on the coast with a canal extending into the country behind. At the present time the Drainage Canal as a navigable water way extends nowhere. Some miles from Joliet, it is even a considerable distance from the city of Lockport. The cost of shipment by canal and reshipment by wagon to these cities is beyond the cost of railroad transportation, so the canal has never been used as a carrier of package freight. For natural causes, the transportation on the canal is almost entirely confined to the carriage of stone. It passes through the limestone country, through the quarries of the Western Stone Company, and near the quarries of others. There the others have leased dockage on the canal, and stone in quantities great and small, as crushed stone, screenings, rubble stone and cut stone, is shipped by water to Chicago. The stone excavated from the channel itself encourages industry and promotes naviga-

tion. It has been sold from time to time to various companies as it lies in the spoil banks at prices ranging from 10 to 15 cents per cubic yard, and in quantities from 100 to 1,050,000 cubic yards. This spoil bank furnished all the stone for the new break-water at Lincoln Park, and it is furnishing stone for the new break-water at Gary, Ind. The Trustees have been unwearying in their effort to sell the stone. It not only brings in a revenue but its removal creates dock space which can be rented for commercial purposes."

THE DEEP WATERWAY AND THE WATER POWER

"So in the waterway question the elemental principles of right and equity, of hydraulics and navigation, brought forward in 1907, are now fought by the private interests on one hand and submerged in impractical visions on the other. The visionaries have played into the hands of the grafters by refusing to support any other than their own schemes, while the self-seeking 'interests' have taken advantage of the visionaries by throwing their whole strength into framing plans which their own acumen tells them to be impossible.

"The Des Plaines and Illinois rivers between the dams at Joliet and Marseilles are sixty-seven miles in length. They have been surveyed for improvement a number of times, and, with the exception of one report, which, on its face, was made with the idea of turning over all water power to private companies, all authorities are substantially agreed upon the proper form of improvement, which is the construction of dams at certain points and the excavation of channels in certain portions. All authorities substantially agree upon the location of these dams. The only open question is as to the size of the channel to be obtained by the improvement.

"In their present state the Des Plaines and Illinois rivers between Joliet and Marseilles are navigable, not in law—at least not in the law of Illinois, for the Supreme Court has so decided it—but in fact. The Supreme Court can determine the law, but it cannot alter the facts. These streams are navigable; I know it because I have navigated them, and without difficulty. They can be improved, greatly improved, by the erection of dams and embankments, and the cost of these improvements can be entirely paid from the water power created at these dams.

"That does not, of course, mean that a channel of any size that man may wish can be created in these rivers and paid for from the water power developed. Navigation on the Illinois River below Marseilles is profitable, though limited, because the Illinois does not furnish a through transportation line, nor does it run between any two large centers of population. Navigation on the Drainage Canal is practically nil, owing to the fact that the Drainage Canal ends 'in the air,' with no market at its inner end. But between the southern end of the Drainage Canal and the northern end of navigation in the Illinois River lies a navigable stream, blocked by dams, around which there are no locks, which is easily capable of improvement. Open up this stretch at whatever depth you will, and navigation will grow upon it and its own growth and development will determine the depth and size of channel which should be used."

PRESENT STATUS OF THE WATER WAY QUESTION

The waterway proposition is still in a formative state, and remains an unsolved problem at this time. The General Assembly of Illinois has not made any pro-

vision as yet for the construction of a waterway under the power granted to it by the constitutional amendment ratified by the people in November, 1908. It is as large and perplexing a problem now as it has been at any time since the issue attracted public notice. Hardly a week goes by while these lines are being written that the question does not assume some new and unexpected phase, and men's minds are in a continual state of flux in regard to it. What the form of this question will take in its settlement it is impossible to predict; but one thing is certain, the people are now alert and every aspect of the great question is receiving the consideration it deserves.

CHAPTER XLIX

WATER SUPPLY AND TUNNELS

WELLS UTILIZED FOR EARLY WATER SUPPLY—WATER DIPPED FROM THE LAKE—PUMPING ENGINE INSTALLED—RESERVOIRS AND WATER TOWER—WATER TUNNELS—FIRST TUNNEL BUILT—DIFFICULTIES OF PLACING CRIB IN POSITION—GREAT PUBLIC REJOICING AT COMPLETION OF THE WORK—OTHER TUNNELS BUILT—THE GREAT SOUTHWEST TUNNEL SYSTEM—LAKE CRIB DISASTER OF 1909—INTER-STATE INDUSTRIAL EXPOSITION—SUCCESS OF THE ENTERPRISE—BUILDING IN USE FOR NINETEEN YEARS—THE CHICAGO ACADEMY OF SCIENCES—EARLY ACTIVITIES OF THE ACADEMY—ANTE-FIRE PROSPERITY OF THE INSTITUTION—COMPLETE DESTRUCTION OF ITS COLLECTION IN THE GREAT FIRE—QUARTERS IN THE OLD EXPOSITION BUILDING—LOCATION OFFERED IN LINCOLN PARK—THE "LAFLIN MEMORIAL" BUILT—GREAT EXTENT OF THE COLLECTIONS—SCOPE AND CHARACTER OF THE WORK OF THE ACADEMY.

EARLY HISTORY OF THE WATER SUPPLY

THE Board of Trustees of the town of Chicago in 1834 paid ninety-five dollars for digging a well at what is now the corner of Cass and Michigan streets. The settlers, however, soon realized that the lake was the most suitable source from which their water supply should be drawn, and for some years private enterprise supplied the wants of the people by means of water carts. Gale, in his "Reminiscences," says that water was sold from these carts at ten cents a barrel, which certainly could not be considered an exorbitant charge. "With a hogshead placed on its side on a two-wheeled cart, with a hole sawed in the upper surface to receive the contents of the long-handled bucket, the boys," says Gale, "would drive into the water, and standing on the heavy shafts fill the cask, which was emptied in barrels at our doors through a short leathern hose." Those living near the lake or river helped themselves, as did the cattle and horses also.

In 1842, five years after the city had been incorporated, a twenty-four horse power engine was installed to pump water from the lake at the foot of Lake street, which could raise twenty-five barrels of water per minute into a reservoir, holding twelve hundred and fifty barrels, thirty-five feet above the level of the lake. The water was taken from the lake through a fourteen inch pipe at a point three hundred and twenty feet from the shore, the pipe protected by a pier. The water pipes in the streets consisted of cedar logs ten feet long, through which three and a half inch holes were bored lengthwise of the logs. There were two miles of these log water mains laid three feet under ground.

So far the water supply had been controlled by private enterprise, but, in 1851,

when Chicago had a population of thirty thousand people, an issue was made on the question of public ownership of the water system. Walter S. Gurnee was elected mayor, and the rights and franchises of the Chicago Hydraulic Company were taken over by the city. A new site for the pumping works was selected at the foot of Chicago avenue. Here a building and standpipe were erected, within which was installed the great vertical beam engine so familiar to old Chicagoans for fifty years. This engine was a wonder in its day. Its cylinder was forty-four inches in diameter, and its piston stroke was nine feet. The great fly wheel had a diameter of twenty-four feet, and weighed twelve tons. The "walking beam," which was a striking feature of this great engine, was thirty feet in length. For half a century, from the date of its completion in 1853, barring intervals for necessary repairs, it continued in service, finally with some other ancient engines being taken down in 1903, and replaced by new engines of more recent designs. This venerable piece of machinery was known to the engineers at the pumping station as "Sally." It was for many years one of the principal attractions for sight-seers and visitors, the people of Chicago taking a great pride in its size and efficiency. The water pumped by this engine was distributed through three reservoirs, one located at La Salle and Adams Streets, on the site of the present Rookery Building, the second at Chicago avenue and Sedgwick street, and the third at Morgan and Monroe streets. Each of these reservoirs held about two or three days' supply.

The Chicago avenue pumping works took its supply of water from a basin near the shore constructed in the following manner: From the shore north of the pumping station a double row of piles was driven which extended a thousand feet into the lake, then south and then back to the shore on the south line of the grounds of the water works. In the space between these rows of piles rough stone blocks were thrown, through which the water from the lake percolated into the basin. In the center of this enclosed body of water was built a crib protected by screens to keep out floating articles, and through this flowed the water into an inlet pipe connecting with the pumping works near by.

The water tower was of brick fourteen feet square at the bottom and diminishing to eleven feet at the top one hundred and thirty-six feet from the ground. Its foundation proved to be insecure so that when the stand-pipe within was filled with water the tower was deflected fourteen inches from the perpendicular. The water was withdrawn from the stand-pipe and the foundation strengthened. The tower continued in service for many years. The building and tower were replaced by more substantial structures in 1867, the new tower reaching a height of one hundred and fifty feet. A report made the next year speaks of the work as follows: "Chicago has outgrown her water works of sixteen years ago. Today upon the site of the old buildings stand in their stead white stone structures which for beauty, strength and magnitude are probably unsurpassed by any buildings in the United States for like purposes."

In spite of the precautions taken to insure a supply of pure water it was found that great numbers of small fish were admitted into the inlet pipe and were drawn through the hydrants. Much complaint on this score, and also on account of roiled water after storms, obliged the authorities to make plans for a tunnel under the bed of the lake at the end of which a crib was to be constructed. This tunnel was completed in 1866 as described below.

The engineer who proposed and afterwards planned this method of obtaining pure water was Ellis S. Chesbrough, a man of broad views, and who had been city engineer since 1855. He had suggested and, under the authority of the Common Council, had planned the new grades for the city which caused so serious an interruption to city traffic in the later fifties, but with permanently beneficial results. It will be interesting to describe in detail some of the essential features of the work on the tunnel, so that the reader may understand the difficulties that the builders were obliged to contend with at a time when construction of that character was not so well understood as it was in a later time.

THE TUNNELS OF CHICAGO

Notwithstanding the fact that Chicago stands on a plain of nearly two hundred square miles in extent, it is remarkable that the earth beneath and its adjoining waters in lake and river are honeycombed with tunnels. The people of Chicago have become the greatest tunnel builders perhaps of any community on the face of the earth. The substratum, composed principally of blue clay to a great depth, renders this kind of construction easy, as compared with like constructions in localities largely underlaid with rocky formations, though at greater depths rock is met with abundantly.

Indeed so expert have become our tunnel builders that the construction of a tunnel for any purpose,—for the conveyance of a water supply from distant points in the lake, for a passage under the river, or for freight carrying under the streets, —scarcely attracts more than passing attention. It is a curious fact, which illustrates what is here said, that the Illinois Tunnel Company, described elsewhere in this work, excavated a network of tunnels some thirty feet under the surface of the streets, of which the public were scarcely aware until it began to be operated in 1905.

The facility with which tunnels are built recalls a story of the Civil War related in the "Memoirs of General Sherman," and quoted by Grant in his "Memoirs," "The rebel cavalry lurking in his rear to burn bridges and obstruct his communications had become so disgusted at hearing trains go whistling by within a few hours after a bridge had been burned, that they proposed to try blowing up some of the tunnels. One of them said, 'No use, boys, Old Sherman carries duplicate tunnels with him, and will replace them as fast as you can blow them up; better save your powder.'"

We shall here give separate accounts of the water tunnels, the tunnels under the river, and those under the streets.

THE WATER TUNNELS OF CHICAGO

Far beneath the surface of Chicago's streets there are flowing rivers of water conducted through tunnels and supplied directly from the boundless flood of Lake Michigan. The volume of the waters thus flowing is almost beyond comprehension, but it is all required for the needs of the great population of the city.

If it were possible that all knowledge of the tunnel system by which the waters of Lake Michigan are conveyed from the inlets to the various pumping stations were lost, and no sketch plans existed from which they could be located, it would

WATER RESERVOIR AT THE CORNER OF MORGAN AND WEST MONROE STREETS

Second Baptist Church on farther corner, Period of the '70s

be an interesting task for explorers in later ages to locate and trace the courses of these constantly running streams far below the surface. But strange to say we find that such a state of things actually exists in the city of Rome. The courses of many of its subterranean aqueducts are not known at this day, the records, if there ever were any, having been lost in the twenty or thirty centuries since they were constructed. Their existence is revealed only where the channel is exposed to the light of day at some point in its course.

THE "LOST WATERS" OF ROME

"The 'lost waters' of Rome," says Marion Crawford, in one of his works, "are very mysterious. Here and there, under old streets and far down amongst the foundations of ancient palaces, there are channels of running water which have no apparent connection with any of the aqueducts now restored and in use. It is a water that comes no one knows whence and finds its way to the Tiber, no one knows how. It is generally clear and very cold, and in the days when the aqueducts were all broken and most people drank of the river, the 'lost water' was highly prized. It appears in the most unexpected places, sometimes in great quantities and seriously interfering with any attempt to lay the foundations of a new building, sometimes black and silent, under a huge flagstone in an old court-yard, sometimes running with an audible rush through hidden passages deeper than the deepest cellars. It has puzzled archaeologists, hydraulic engineers and architects for generations, its presence has never been satisfactorily explained, there seems not to be any plan of the city which shows its whereabouts, and the modern improvements of the Tiber's banks do not appear to have affected its occult course. By tradition handed down from father to son, certain workmen, chiefly masons and always genuine Romans, claim to know more about it than other people; but that is as much as can be said. It is known as the 'lost water,' and it rises and falls, and seeks different levels in unaccountable ways, as water will when it is confined under the earth but is here and there confronted by the pressure of the air."

Such a condition of affairs would doubtless be found in our own locality, if, after thousands of years of vicissitudes similar to those through which the ancient city of Rome has passed, the inhabitants of our city had relapsed into such a condition as that city experienced during the intervening ages, and all accurate knowledge of our tunnel system was lost and its connections broken.

MORE LIBERAL USE OF WATER FOR FOUNTAINS SUGGESTED

A suggestion made by Lorado Taft in a magazine article on the subject of the Ferguson bequest, and the possible uses that its generous provisions could be applied to, referred to the establishment of fountains throughout the city. He said: "Some day we dust-covered and dust-choked toilers may learn, as have the Parisians and the Romans, the artistic uses of water in streets and squares. They have to bring it from mountain springs many miles away; we have a supply practically as boundless as the ocean right at our doors. To be sure we have to pump it, but why should not some of this vast supply serve us *en passant*, for the refreshing of our eyes and the beautifying of our public places? Chicago is delving deep as well as piling high, and the water could find its way to the subterranean boilers

just as well after sparkling for a moment in the basins of great fountains. Arriving in Rome on a hot day the traveler is greeted by the splash of water at the very portal of the station, and its music accompanies him wherever he goes. The mist of great jets of water floats above him; the tinkle of their cascades is ever in his ear. No one thing would do as much to make Chicago attractive in midsummer as a generous supply of beautiful fountains."

CONSTRUCTION OF THE TUNNEL AND CRIB

Mr. Chesbrough's proposal was to construct a tunnel two miles under the bed of Lake Michigan in an easterly direction beginning at the end of Chicago avenue. At the end of the tunnel was to be built a crib through which the water could be admitted to the tunnel from which the pumps on shore would take their supply. It was necessary, however, to obtain the consent of the Federal authorities which consent was given by an act of Congress passed January 16, 1864. The act conferred power on the city of Chicago "to extend aqueducts or inlet pipes into Lake Michigan, so far as may be deemed necessary to insure a supply of pure water, and to erect a pier or piers, in the navigable waters of said lake, for the making, preserving, and working of said pipes or aqueducts: Provided, that such piers shall be furnished with a beacon light, which shall be lighted at all such seasons and hours as the light on the pier at the entrance to the Chicago river."

A contract was entered into with Messrs. Dull & Gowan of Harrisburg, Pennsylvania, the contract price being fixed at $315,139, and work began May 26, 1864. The vertical shaft was nine feet in diameter, and at a depth of sixty-six feet a tunnel was driven horizontally six feet in diameter, tapering down to five feet in a distance of twenty feet, after which it continued with the same diameter throughout its course. The report of the Engineer states that the excavation was generally through stiff blue clay, in which occasionally sand pockets were found and sometimes small bodies of quicksand were encountered. Sometimes boulders weighing several hundred pounds were met with, and on one occasion a boulder was so large that it was necessary to break it up by blasting. "There was a little nervousness as to the effect of a blast under the lake, but it caused no serious disturbance, either of the ground or the masonry" with which the completed portions had been lined.

PLACING THE CRIB IN POSITION

At the same time that tunnel construction began work was commenced on a massive five-sided crib, the dimensions of which were specified to be fifty-eight feet, horizontal measurement, on each of the five sides, and forty feet high. The inner portion of the crib had sides parallel with the outer faces and each twenty-two feet long, thus leaving a space between the inner and outer walls of the crib of twenty-five feet. This space was filled with a compact body of masonry after it was placed in position. Three rectangular openings, each four feet wide and five feet high, were made through the sides so that water could be drawn from near the bottom, middle or top, as might be required. Each of these openings was provided with gates so that the water could be cut off whenever it might be thought necessary. The hollow walls were made water tight and a bottom of planking provided so that when launched it would float, which it did accordingly. The crib

was more than a year in course of construction and when completed and launched it was towed out to its position and preparations were made to sink it in place. Immediately after the contractors began to fill the crib with stone a very violent storm arose and drove the vessels loaded with stone into the harbor. The storm continued for three days and threatened, before it abated, to do serious if not fatal injury to the crib. After the storm was over it was found that the crib had worked out of its position some thirteen feet, and the north west angle was three and a quarter feet lower than the opposite one.

The depth of the lake at the point where the crib was sunk is thirty feet so that ten feet of the crib walls or "breakwater" rose above the surface. "The great difficulty there would have been in restoring the crib to its exact position," says the Engineer's report, "and the fear there might be another storm meantime, prevented any attempt of the kind being made. The very slight deflection this rendered necessary in the line of the tunnel was of no practical importance whatever, though regretted, and the variations of the sides of the crib from perpendicular . . . did not affect its stability. The filling of the crib was proceeded with as fast as the contractors could, and since it was completed, about the middle of August, no variation whatever in the position of this structure has been perceived. A tremor is frequently felt during severe storms, and when large fields of ice are passing. The rubbing of field ice against the crib is occasionally accompanied with a fearful noise. At such times the crib appears to a spectator on it to be an immense plow moving through the ice. On several occasions the broken masses lodged on the south side of the crib, forming banks several hundred feet long, and reaching from the bottom of the lake to ten or fifteen feet above the surface."

The space between the inner and outer walls of the crib having been filled with stone a cast iron cylinder nine feet in diameter was sunk within it and after having the water drawn out excavation was begun and on reaching the proper depth was continued in a horizontal direction towards the tunnel approaching from the shore. The daily average of progress was nine and one-third feet and having reached a point 2290 feet from the lake shaft the two parties met. "The two faces were brought together on the 30th of November, 1866, when it was found that the masonry at the east face was only about seven and one-half inches out of the line from the west end."

Public enthusiasm over the completion of the tunnel was unbounded. A flag was raised on the Court House tower in honor of the event, and a tour through the tunnel by the Mayor and members of the Common Council was arranged a few days later. A tug boat took Mayor Rice and his party to the crib where they entered the tunnel and were seated on the dump cars a train of which were awaiting them, the motive power being a mule. On reaching the point where the tunneling parties met each other the Mayor made an address and placed a stone in position inscribed with the words "Closed, December 6, 1866." The party returned to the crib and soon after were joined by another party which had passed through the entire length of the tunnel from the shore end of it. At this moment the cannons boomed simultaneously from the crib and the shore. Speeches followed, one of them by Mr. Chesbrough, the engineer, who more than any other man was responsible for the success of the enterprise. A dinner prepared in the

kitchen of the crib was served, after which the party arriving through the tunnel returned the way it came, while the Mayor and his party took passage on the tug boat.

The Engineer's Report concludes his account of construction work on the tunnel, as follows: "The work of filling the chambers of the main tunnel and the cleansing of that structure having been completed, water was first let into it on the 8th of March, 1867, when only the horizontal portion was filled, this precaution being taken to avoid too sudden pressure on the masonry. By the morning of the eleventh the shafts were filled to the level of the lake. For the purpose of ascertaining if any defective workmanship existed where cavities on the outside of the masonry had been filled in, the water was pumped out of the tunnel sufficiently to permit the engineer and three representatives of the press to go upwards of half the way towards the land. Not a brick was observed to be out of place or to have started. After the examination, the tunnel was again filled with water, and on the 24th the mouth of the old inlet was cut off from the lake."

LATER TUNNELS

In 1874, another tunnel seven feet in diameter was constructed parallel to the first one and fifty feet distant from it. The course of the latter was continued under the city to the west works at the corner of Ashland avenue and Twenty-second street, where the pumps force the water into mains. This increased the daily capacity to one hundred millions of gallons, though not more than two-thirds of that quantity was actually used. It was decided by the engineers that the distribution of water would be more economically and efficiently accomplished by placing pumping stations two or three miles apart in the more densely populated areas, "because the loss of head and cost of mains and pumping to obtain the least allowable pressure are thus reduced to a minimum." It was in accordance with this view that the tunnels afterwards constructed were located at various points along the shore of the lake, and pumping stations erected at widely distant points in the city, and connected with the existing tunnels by tunnels extended under the city's streets.

In 1892, the "Four Mile Tunnel" was completed. This tunnel extended under the lake bottom nearly in line with Twelfth street, ending at a crib substantially built of masonry. That portion of the tunnel underneath the bed of the lake ends at Park Row shaft, from which two tunnels are extended under the land, one of which reaches the pumping station at Fourteenth street and Indiana avenue, and the other at Harrison street near Halsted street. All the tunnels have developed into systems, many of them having become a complicated network connecting at several different pumping stations, and with each other. Changes, designed to economize the flow and meet the requirements of rapidly growing sections of the city, are in progress continually. The engines installed in the various pumping stations are the finest of their kinds in the world.

The annexation of an extensive area, in 1889, brought within the city limits of Chicago, the city of Lake View, and the towns of Hyde Park, Lake, and Jefferson. This increased the area of the city to one hundred and seventy square miles, and the population to one million, two hundred thousand. Through this annexation the

city acquired two pumping stations, the Sixty-eighth street station, and the Lake View station, the latter having already a partially constructed tunnel connected with a crib five thousand feet from the shore. After annexation it was decided to extend the tunnel a mile farther, so that the intake crib is practically two miles from the shore. Later, successive annexations brought within the city limits the water works plants of Washington Heights, Norwood Park, Rogers Park, and Cicero.

The annexation of the large territory in 1889 and 1890, and the acquisition of the several pumping stations of the various municipalities, with the inadequate pipe systems in use, greatly complicated the water supply situation. As the pumping stations were all located along the lake shore taking their supply, some from pipes two and three feet in diameter extended to various distances along the bottom of the lake, and some from tunnels with submerged intakes, water had thus to be forced for miles through mains which were laid necessarily without regard to the new conditions and demands that had arisen. The pipes were too small and the necessity of additional large feeder mains was imperative in order to insure a proper distribution of the water as furnished by the pumping machinery then in existence. The annual increase in population and manufactures was far beyond expectations. The additional machinery that had been placed during 1892 in the Lake View and Sixty-eighth street stations, and the opening of the Fourteenth and Harrison street stations in connection with the Four Mile tunnel failed to give relief to certain portions of the city. The average daily pumpage during 1894 was nearly two hundred and forty millions of gallons, or one hundred and fifty-two gallons per capita. In the western part of the city there still continued to be a deficiency in the supply, and the authorities were compelled to take further steps in tunnel construction.

The "North East Lake Tunnel" was ordered to be built in 1896, and this was completed in January, 1899. It extended from the shore at Oak street northeasterly to a new intake crib called the "Carter H. Harrison Crib." Its length was fourteen thousand feet and it had a diameter of ten feet, and a well in the center of the crib was sixty-two feet in diameter. Six ports, each five and a half feet square, located near the bottom, allow the water to enter the well.

Meantime the tunnel already constructed before annexation by the authorities of the town of Hyde Park, and taking its water through a submerged intake, was found insufficient. Another and larger tunnel, seven feet in diameter, was constructed, ending at the Sixty-eighth street crib.

THE SOUTHWEST LAND AND LAKE TUNNEL SYSTEM

In April, 1906, construction began on by far the largest system yet designed, called the "Southwest Land and Lake Tunnel System." This will involve, when completed in the fall of 1911, some sixteen miles of water tunnels extending under the lake from the new crib adjacent to the Sixty-eighth street crib to various pumping stations in the southwest part of the city. The expenditure involved to carry out this great project will be in the neighborhood of eight millions of dollars. The crib at the extremity of the tunnel is already completed and is called the "Edward F. Dunne" crib, in honor of Mr. Dunne who was mayor of the city from

1905 to 1907. A cross section of the new tunnel shows the shape of a horse shoe. Its interior height is fourteen feet in its course under the lake, becoming smaller however after dividing into three branches under the land. The center of the tunnel will be one hundred and twenty feet below the level of the lake, and a large part of the excavation is through solid rock.

A brief description of this, the largest tunnel among the water tunnels of Chicago, is condensed from the Engineer's report printed in the Mayor's Message for 1906 and that for 1908. The intake crib, that is the "Edward F. Dunne Crib," is located close to the Sixty-eighth street crib. The two cribs are connected by a foot bridge. The tunnel will supply three pumping stations, one to be located at One Hundred and Fourth Place and Stewart avenue, the second at Seventy-fifth street and Western avenue, and the third in the vicinity of One Hundred and Twenty-sixth street and Yates avenue, each station having a maximum capacity daily of one hundred millions of gallons.

In its construction an intermediate crib was placed on the line of the tunnel seventy-five hundred feet from the shore, so as to expedite the work of excavation. This crib will be removed when the tunnel is completed. It was at this intermediate crib that a disaster involving the loss of some seventy lives in January, 1909, took place which is mentioned below. An aerial cableway was constructed by the contractors in connection with the work, carried on twenty-six steel towers. On the night of January 30, 1908, the ice carried away nineteen of these towers, which however were rebuilt and again put in operation in the following August.

THE LAKE CRIB DISASTER

The temporary crib used in the construction of the new tunnel of the Southwest Land and Lake Tunnel System, situated on the line of the tunnel seventy-five hundred feet from the shore, caught fire from some unknown cause at eight o'clock in the morning of January 20, 1909. There was a large force of laborers on the structure at the time, it having been found impracticable to carry them back and forth each day on account of the large quantity of ice in the lake. The structure being of wood the fire once started spread rapidly, and the unfortunate men were caught as in a trap, and most of them were burned to death or drowned in efforts to escape before help arrived. Some saved themselves by seeking a precarious refuge on floating cakes of ice, though some met death by drowning in attempting to do so. Tugs came to the rescue as soon as they could force their way to the scene and saved some of those on the ice. The exact number of victims could not be ascertained, but it was believed that seventy men lost their lives in this appalling disaster.

Some two hundred pounds of dynamite was stored in a powder house on the first floor of the structure, but "it probably burned without exploding," says the engineer in charge, Mr. George F. Samuel, in his report of the accident. "None of the eye witnesses heard or saw an explosion, and the condition of the structure after the fire did not indicate that an explosion had taken place." The structure was rebuilt and was ready for use in the following June, but workmen were no longer housed at the crib.

INTAKE CRIBS NOW IN USE

At the end of the year 1910, there were six waterworks cribs in the lake at distances ranging from two to four miles from the shore. These cribs may be briefly described as follows:

Lake View Crib, connected by a tunnel with the shore at Montrose boulevard.

Carter H. Harrison Crib, connected by a tunnel with the shore at Oak street.

Two Mile Crib, connected by three tunnels with the shore at Chicago avenue.

Four Mile Crib, connected with the shore by a tunnel at Twelfth street.

Sixty-eighth Street Crib, connected by a tunnel with the shore at Sixty-eighth street.

Edward F. Dunne Crib, connected by a tunnel with the shore at Seventy-third street.

Although the two latter cribs are adjacent to each other the tunnels communicating with them have diverging courses.

INTERSTATE INDUSTRIAL EXPOSITION

The Exposition building, which stood on the lake front at the foot of Monroe street from 1873 to 1892, was built by the Chicago Interstate Industrial Company, an association of Chicago business men. Among the leaders of the enterprise were J. Irving Pearce, W. F. Coolbaugh, Potter Palmer, and R. T. Crane. These gentlemen were joined soon after by others who subscribed for the stock; in all there were five hundred and twenty-two subscribers to the stock. The first meeting of stockholders was held April 4, 1873, and the following officers were elected: President, Potter Palmer; Vice-Presidents, Joseph Medill, W. F. Coolbaugh, Wirt Dexter, N. K. Fairbank, and Jacob Rosenberg; Treasurer, J. Irving Pearce; Secretary, John P. Reynolds. The Executive Committee was composed of the following gentlemen: N. S. Bouton, George S. Bowen, A. C. Hesing, R. T. Crane, George W. Laflin, T. W. Harvey, and David A. Gage.

The Interstate Industrial Exposition began its career just as the disastrous financial storm of 1873 was breaking upon the business world. Undeterred by the threatening state of affairs the managers opened the building to the public on the night of September 25th, while twenty thousand people assembled in the great structure responded with cheers to the speeches and music of bands. Only ninety days had been required from the time the ground was first broken to the time of its dedication. Mr. W. F. Coolbaugh called the vast audience to order. Mr. N. S. Bouton then made the opening address in which he told the history of the enterprise. Lester L. Bond, then mayor of Chicago; John L. Beveridge, then governor of Illinois; and Senators John A. Logan and Richard J. Oglesby, followed with speeches.

In the forty-eight days during which the Exposition lasted, six hundred thousand people viewed the 1320 exhibits it contained. The Exposition company had received permission from the city to occupy the ground for its building for that one season only, but when the time arrived for the removal of the building the managers were able to secure an extension until May, 1876; the press of the city, backed by a strong popular sentiment, supporting the cause of the Exposition with enthusiasm. When the extended time had elapsed the building was allowed to

stand by sufferance while its uses multiplied,—great political conventions, musical festivals, garden concerts, balls, cattle shows, and many exhibitions, finding here adequate space for their purposes and a convenient location for the attendance of visitors. It was thus that the immense advantages accruing to a city from the possession of such an extensive structure, adapted to so many purposes, began to dawn upon the people, and becoming, as it did, an important factor in the city's progress.

IMPORTANT OCCASIONS AT THE EXPOSITION BUILDING

The great National Republican Convention of 1880 was held in this building, on which occasion James A. Garfield was nominated for the presidency on the thirty-sixth ballot after one of the most spirited political battles in our history. Four years later another National Republican Convention was held in the same place, upon which occasion James G. Blaine received the nomination for the presidency. During the same summer the National Democratic Convention held its sessions here when Grover Cleveland received the nomination.

The old structure, even then beginning to show signs of decrepitude, had another honor thrust upon it—that of being the arena of the first "May Festival" given by Theodore Thomas in Chicago. This season of song was held May 23 to 26, 1882. N. K. Fairbank was President, George S. Dunlap and A. A. Sprague, Vice-Presidents; Philo A. Otis, Secretary; George Sturges, Treasurer; and Milward Adams, Business Manager. Seven concerts were given—four in the evenings and three in the afternoons. Included in them was a chorus of one thousand voices under W. L. Tomlins, and solos by Frau Materna, Mrs. Osgood, Annie Louise Cary, Emily Winant, Sig. Campanini, William Candidus, Theo J. Toedt, Georg Henschel, Myron W. Whitney, and Franz Remmertz. Clarence Eddy was organist. Chicago fairly went wild over the festival, which was run at popular prices, and another was given under the same leader May 27 to 31, 1884. In the seven concerts given in the second May festival Thomas directed an orchestra of one hundred and ninety pieces, and Tomlins a chorus of one thousand voices, with a children's chorus at the last matinee. Solos were sung by Christine Nilsson, Mme. Materna, Emma Juch, Emily Winant, Hermann Winkelmann, Emil Scaria, Franz Remmertz, Theo Toedt, and Max Heinrich. In these May festivals Frau Materna, Winkelmann, and Scaria made their debuts in Chicago.

INTERESTING FACTS ABOUT THE EXPOSITION

During the nineteen years of the existence of the old Exposition building there was registered a total attendance of six millions of persons. Included in the various events which took place in that time there were four National nominating conventions, fourteen annual exhibits of horses, cattle, dairy products, poultry; an international exhibition of railway appliances, "the greatest of the kind ever held in the world, occupying all the vast building and part of the Lake Front Park outside;" operatic festivals, two meetings of the North American Sangerfest, a national Knights Templar conclave, Theodore Thomas' summer night concerts, exhibitions by school-teachers' associations, and twelve events in aid of charity. On one occasion, when Marshall Field & Co.'s establishment was damaged by fire the building was occupied as temporary quarters by that firm, and the three thousand persons employed were kept at work who would otherwise have been idle.

By permission of Chicago Historical Society

INTER-STATE INDUSTRIAL EXPOSITION

This stood on the lake front at the foot of Monroe street, from 1873 to 1892. It has been known in late years as the "old Exposition building"

The purpose of the managers at first was to hold annual expositions, allowing manufacturers, merchants and tradespeople free space on the floor for exhibiting their works and their wares, in order that the public might become acquainted with late methods and production, and trade thus be stimulated. A capital stock of $150,000 was subscribed, which was soon increased to $250,000, when the city council granted the use of the lake front for the building site. For the first few years there was an annual deficit in the financial affairs of the Exposition, which was made up by the stockholders; later, when it became self-supporting, and an annual dividend was declared, the Common Council demanded a rental for the ground which had been granted to the Exposition company. Objection was rightly made that the stockholders were in reality guarantors, and that this was primarily a public-spirited enterprise undertaken for the advancement of Chicago's interests; that the losses of previous years more than entitled the stockholders to dividends when there was a surplus. An annual rental of one thousand dollars was finally agreed upon.

The Exposition building cost to erect about $280,000. From the beginning no charge was made to exhibitors for space in the building or for motive power. For the first few years the price of general admission tickets was fifty cents, but, in 1876, the price of admission tickets was reduced to twenty-five cents, resulting in a largely increased attendance but in diminished receipts. The management, however, were well satisfied, for it gave evidence of the general popularity of the Exposition. The building was used for many purposes beside that for which it was primarily intended. The great May festivals were held in a large temporary hall constructed within the great building.

At the annual meeting of the stockholders of the Exposition, held November 14, 1885, the following resolution was offered by Edwin Lee Brown, one of the directors: "Resolved, That it is the sense of this meeting that a great World's Fair be held in Chicago, in the year 1892, the four hundredth anniversary of the landing of Columbus in America." This was the first formal expression which afterwards ripened into the movement making Chicago the place for holding the great World's Columbian Exposition.

In the spring of 1892 the Exposition building was torn down to give place to the Art Institute.

THE CHICAGO ACADEMY OF SCIENCES

"The Chicago Academy of Sciences is believed to have the honor of being organized at an earlier date than any other scholarly body now existing in Chicago." So wrote the secretary of the Academy a few years ago, in giving an account of the gathering together, in 1856, of a small circle of those who were enthusiastic for the promotion of scientific investigation. At a later meeting of these men an organization was completed and officers were elected. The original members of "The Chicago Academy of Natural Sciences" were James V. Z. Blaney, Nathan S. Davis, James W. Freer, C. A. Helmuth, Hosmer A. Johnson, Edmund Andrews, Henry Parker, J. Young Scammon, Franklin Scammon, Richard K. Swift, Joseph D. Webster, Eliphalet W. Blatchford and Henry W. Zimmerman. Money was subscribed, and a room was rented in a building on the southeast corner of Clark and Lake streets. In this room were put a few cases to contain specimens, and here a museum was started. As there was not enough money at

first to pay the salary of a curator, a few of the members, in their leisure hours, worked on the cabinet, and the interest was kept up by regular monthly meetings.

The society was incorporated in 1859 under the name "The Chicago Academy of Sciences," and the members, property and interests of the former organization were transferred to the incorporated body. This reorganization resulted in renewed activity and interest, which was greatly stimulated by Robert Kennicott, a young naturalist of great ability and zeal. He, with Dr. Edmund Andrews, had brought to the museum the most of the many thousand specimens then in its possession. In 1859 Mr. Kennicott joined a scientific expedition, conducted by the Smithsonian Institution, to northwestern Arctic America. He returned three years later with many valuable specimens for the departments of natural history and ethnology, which he had been able to secure for the Academy by designating it as the second beneficiary of the expedition, after the Smithsonian Institution. Interest was growing in the Academy, promises were made by the Smithsonian Institution of much new material, and as a result of this enthusiasm Professor Louis Agassiz of Harvard University was invited to address a meeting in Chicago on February 22, 1864. This occasion aroused such enthusiasm that a subscription paper which was started soon contained the names of one hundred and twenty-five persons, each of whom agreed to give the sum of five hundred dollars. At the time of Professor Agassiz' address, Mr. Kennicott had secured the passing of the following resolutions, which resulted in the generous subscription list just mentioned:

Resolved, That the creation of a museum of the natural sciences for the increase and diffusion of knowledge is highly desirable, and especially so at the present time, in order to secure to this city the large and valuable collection now apparently within its reach.

Resolved, That a committee be appointed to devise ways and means and to act as trustees of any funds that may be raised for the accomplishment of this object.

Resolved, That the committee above designated consist of J. Young Scammon, Ezra B. McCagg, George C. Walker, Edmund Aiken, Daniel Thompson, Eliphalet W. Blatchford, Henry G. Loomis, William E. Doggett and two others whom they may name.

The subscribers to the museum fund were made life members of the Academy. As the raising of this fund was a movement distinct from the work of the Academy, the committee which was named in the resolutions and appointed to act as trustees for the fund later resolved to be merged in and consolidated with the board of trustees of the Chicago Academy of Sciences, and all the property and effects of the two organizations became vested in this board of trustees. A new charter was obtained in 1865, in order to place the Academy and its property on a firmer foundation. Rooms were secured in the Metropolitan block, the property of the Academy was moved there, and new cases were built to hold the specimens sent by the Smithsonian Institution.

THE EXPEDITION TO SIBERIA

In March, 1865, Mr. Kennicott, the year before made the curator of the Academy, started on another expedition along the northwest coast of North

America. The Western Union Telegraph company were planning to send out an expedition to survey this coast for the purpose of establishing a route for a telegraph line that would connect this continent with Asia by crossing the Behring straits. The company generously offered to naturalists the opportunity of joining the expedition through this scarcely known and almost inaccessible country. Mr. Kennicott joined this party, his outfit for scientific investigation and collecting being furnished by the Academy at a cost of a thousand dollars. On the Isthmus of Panama, where the party were crossing to the Pacific ocean, Mr. Kennicott gathered many valuable specimens. His immense energy, high spirits, and love of fun was infectious, and his devotion to his work and his disregard of danger compelled admiration. He was there chosen the captain of the expedition. On their arrival at San Francisco word came to him that he had been elected to the office of Director of the Academy, and he telegraphed his acceptance of the honor. But he never returned to resume the duties of his office; in the second year of his trip he died suddenly, and while alone, May 13, 1866, on the banks of a far-off river of the Northwest region. The loss to the Academy and to the cause of science in the death of Mr. Kennicott was great indeed. The collection made by him on the expedition was later sent to the Academy. To take his place while away Dr. William Stimpson had been elected curator for a year, and on November 12, 1866, he was elected Director of the Academy, to succeed Mr. Kennicott in that position. These two were the only persons who have ever been given this office. Dr. Stimpson had been secretary of the Academy before being made curator, and was well prepared for the work he undertook. He had been a student under Agassiz, and for several years was in charge of the department of invertebrate zoology of the Smithsonian Institution, a branch of research in which he was regarded as the leading American authority. The Institution deposited with the Academy a full series of specimens of invertebrates which Dr. Stimpson had collected from all waters, and paid him, besides, the rare honor of sending to the Academy a large collection of its own specimens for his determination.

VICISSITUDES OF THE ACADEMY

From 1865 to 1871 the Academy grew and prospered. The collection became so large that by the end of 1865 the trustees, seeing the necessity for more room in the near future, began to consider the means of obtaining ample accommodations. A lot was bought on Thirtieth street, with a frontage on Indiana and on Prairie avenues, for the surprisingly low figure of thirty-five dollars a front foot. This was done as an investment only, not for building purposes. Offers were made at about the same time by the trustees of the Douglas estate to donate to the Academy the necessary land for a building in the vicinity of the old University of Chicago, at Thirty-fourth street and Cottage Grove avenue. The gift was declined because the lot was at too great a distance from the center of the city.

On June 7, 1866, the collections and rooms of the society were seriously damaged by a fire which broke out in the Metropolitan block and destroyed almost the entire property of the Academy. Dr. Stimpson's report of the losses by the fire includes a list of almost all the priceless treasures in the collections—a sad record of the wiping out of work done and of possessions painstakingly gathered

from many regions. A large portion of the $30,000 of insurance held was collected, and the remaining possessions were kept in the same quarters temporarily until a fireproof building might be made ready to receive them. With the intention of erecting such a building, the trustees purchased a lot on the west side of Wabash avenue, north of Van Buren street. On a corner of this lot was a brick dwelling house, which the board repaired and enlarged, and then rented to tenants for $3,000 a year for a term of five years. Their intention was eventually to put up on the rear of the lot a fireproof building which should contain exhibition, library and work rooms, and a hall suitable for the meetings of the Academy and for lectures. With this plan, it was thought inadvisable to keep the property on Thirtieth street, and it was sold in 1866 at a large advance over the purchase price.

The activities of the Academy continued, in spite of the setback caused by the fire, and in 1867 the society united with the Smithsonian Institution in sending Mr. Ferdinand Bishoff on an exploring expedition along the shores of the northern Pacific ocean to collect zoological specimens. In this year also a complete set of the game birds of Illinois was prepared and sent as an Academy exhibit to the Paris World's Fair. In exchange, the Academy received a fine collection of mounted European birds.

The new building which was constructed on the rear of the Wabash avenue property was completed in January, 1868; it was finished throughout and contained a basement, a ground story, and above this a museum hall, containing two galleries. Every precaution had been taken to guard against another loss by fire. "The supposed fireproof character of its new home," says the report," "which was unique at that time in the construction of museum building, led many institutions, as well as private individuals, to send large and valuable collections to the Academy. This was especially true of the Smithsonian Institution." Specimens were also received from the Bishoff expedition and from the Kennicott expedition of two years before.

INCREASED INTEREST IN THE ACADEMY

To meet the growing interest of the public in the Academy, a resolution was adopted in November, 1869, to open the Academy to the public every Saturday from nine o'clock a. m. to five o'clock p. m. Hitherto the museum had been open only to members of the Academy, students of natural history and invited guests. This step made the Academy more popular and finally resulted in opening its doors to the general public every day in the year. The growth of the Academy was shown in many ways, among them the organization among the members of sections for special study, a large number of visitors to the museum and increased membership. At the close of 1871 there were one hundred and thirty-nine life, sixty-nine resident and forty-six corresponding members. "It was evident that the affairs of the society were ably managed, and that a strong foundation had been established, upon which could be built a future valuable alike to the lay and to the professional seekers after scientific knowledge." It is enough to say of the influence exerted by the Academy, and the esteem in which it was held, that scientific study and discussion had indeed become common in many homes in the city.

Of great importance in establishing a reputation for the Academy as a recognized institution among the older European and American societies was in

the publication of its first volume of transactions. This was a beautiful royal octavo volume of three hundred and thirty-seven pages, containing eleven papers which represented original research and were recognized as contributions of the highest value to science. Many full-page plates and text figures illustrated the papers.

All this prosperity and the realization of one cherished plan after another seemed, as we look back, to lead but to a final defeat of effort and ambition. For the great fire of 1871 included in its wide destruction the portion of the city in which the Academy stood. There would have been time to carry the most valuable of the contents away from the building, but it seemed more dangerous to remove them than to leave them in their "fireproof" repository. The building and its contents were completely wiped out. The record in the minutes of the board of trustees gives some idea of the losses:

DESTRUCTION IN THE GREAT FIRE

"On the 9th of October, 1871, in that great conflagration which swept away all the better portion of Chicago, the Academy building, with all its valuable contents, was burned. Hardly a vestige remained. It was the work of years laid low in an hour, and we might truthfully say that in some instances it was the destruction of all the results of the labors of a lifetime. Many persons had labored faithfully for the Academy from its very organization. They had watched its steady growth month by month, and year by year, and felt a just pride in all it had accomplished. It was very dear to them, for their labor had helped to make it. Their work had been one for love of science, and they had acted from a heartfelt desire to benefit their fellow-man. In that building were the collections of the very founder of the institution, Mr. Robert Kennicott, who worked so faithfully, but died before he could see the great good he had done. There were also the collections, library, publications and valuable manuscripts of Dr. William Stimpson. His loss was beyond computation. It seemed as though all the labor of his life was gone. In a letter to the secretary he says in reply to some words of sympathy, he had, indeed, lost heavily—in fact his all—the product of days and nights of toil in many parts of the world for the past twenty years. He had looked forward to the publication of his own works by the government, and consoled himself with the thought that although he could not leave his children wealth, he could yet leave them this assurance, that he had nevertheless not been idle. But a fatality seemed to attend him. He had just completed, by his trip in August, the gathering in of all his materials—from his father's house, from Agassiz's, from Ilchester, and from the Smithsonian, just in time for the fire. 'But had I lost twice as much I shall never regret coming to Chicago, for I have found there noble and generous friends, not only to myself, but friends of science such as no other city in America can boast; and of more value to me than worldly possessions will be the memory of the friendly experiences I have had with yourself and the other trustees and the friends of the Academy, while we together built up a monument which, though now leveled with the dust, will long live in scientific history. May our past be an earnest of our future.'"

Dr. Stimpson's familiarity with the collections was so great that he was able to make very nearly a complete report of its past possessions. In this report

were mentioned several collections of great importance to the scientific world; manuscript descriptions of some of these collections: pamphlets, maps and the various libraries which were housed in this building; American archaeological and ethnological specimens. The personal loss of Dr. Stimpson was incalculable, and his life's work seemed in vain; his health broke down soon after this great blow. After he made a report of the Academy's losses to the trustees he was given an indefinite leave of absence, and went to Florida to recuperate. He never returned to Chicago, and died at Hchester, Maryland, at the home of friends. He, with Robert Kennicott, had built up the Academy, and within the six years just preceding the fire he had done more than anyone else in assuring and assisting in its growth. He was director of the museum, a trustee of the Academy for life, and its secretary.

The Academy had now lost its active leader, besides its buildings, its collections, library and manuscripts. The larger building, supposedly fireproof, was not insured; the brick dwelling house standing on the same lot was insured for $10,000. Meetings were soon held, however, for the purpose of providing for the future of the institution, and the wide reputation of the Academy secured for it many gifts from societies and individuals, and rooms were offered for the temporary use of the society. It was decided to mortgage the Wabash avenue property, and with the borrowed money build a business block, the rents of which would pay the indebtedness and finally bring in to the Academy a goodly income. The venture was made, but proved a failure, as the building was not near enough to the center of trade, and because of the financial depression of 1873 and the years following. In 1876 an enforced sale was made and the whole property was thus lost.

QUARTERS IN THE EXPOSITION BUILDING

Just at this crisis the managers of the Interstate Exposition offered to give space in their building on the lake front at the foot of Adams street for exhibiting the collections of the Academy. For the privilege of having this attraction in their building, the managers agreed to furnish an office for the curator, where the business of the Academy could be transacted, and to pay his salary. For the next six years, therefore, the collections were on exhibition there, inadequately protected from dust and wear, and exposed to the dangers of fire. During this time the president of the Academy, Dr. Edmund Andrews, and the secretary, Dr. J. W. Velie, were the only active working officers, the latter mounting and arranging the specimens for exhibit and adding much material to the collections through his own efforts: He also arranged the programs of the meetings and kept alive the interest of the public with every means in his power.

In 1891 the new University of Chicago made generous proposals to the Academy offering to provide room for its collections and offices for administrative purposes; to pay the curator's salary, and the expenses incidental to the care of the property. Assurance was made that the independent existence of the Academy should be preserved. The members had various objections to the plan; they felt that by this arrangement the identity of the Academy would be lost; they pointed out the great distance of the university campus from the center of the city; and expressed the desirability of maintaining the Academy on neutral ground among Chicago's increasing number of societies and individuals with scientific interests.

The members voted to reject the offer made. The discussion provoked in deciding this matter aroused much interest. The meetings were well attended, and other scientific organizations in the city, upon application, transferred their membership to the Academy. The list of active members was nearly doubled. Many sections for the study of particular branches of science were organized, and these sections held monthly meetings.

SCOPE AND CHARACTER OF ITS WORK

A most important branch of the society's work was established in 1892, and is the department known as the Natural History Survey of Chicago and Vicinity, which includes three general subdivisions; geology and allied sciences, topography, zoology and botany. This work of investigating both the economic and purely scientific features of the area covered was entrusted to specialists, whose reports and bulletins were made as nearly monographic as possible. "The area covered by the survey was known to be peculiar in two distinct systems of drainage, either of which might, under certain conditions, prevail over the other. As this peculiarity of the drainage is of great scientific interest, it was thought desirable to emphasize this by fixing upon the following boundaries: Beginning at the north line of Cook county and Lake Michigan, thence westward, coincident with the north line of Cook county to Kane county; thence southward along the east line of Kane and Kendall counties to the southeast corner of Kendall county; thence eastward, coincident with the south line of Cook county to the east line of Lake county, Indiana; thence northward to Lake Michigan.

"These boundaries include an area of about forty-eight or fifty miles square, which, after deducting the approximate area of the lake covered portions, leaves nearly 1,800 square miles of land surface. It comprises all of Cook and Du Page counties, the nine north townships of Will county, and a portion of Lake county, Indiana.

"The importance of this survey will be appreciated when the rapid growth of the city of Chicago is considered. The surface of the area is constantly changing, both because of the agency of man and of other forces. The numerous railroads centering here are constantly bringing new things to the soil, which, finding a congenial climate, finally become a fixed part of our natural history. More important still is the recording of natural features that are being exterminated or effaced, and of which no indication will be left except in printed records. The historians of Chicago and its environments in future generations will have to depend on the printed documents of the present for the indigenous natural features."

THE LOCATION IN LINCOLN PARK

The Academy was in 1892 without any kind of a home for the future because the Exposition building was to be torn down. An offer made by the board of commissioners of the West Park system to erect a building for the Academy in Garfield park was considered favorably, but when the law regarding such a building was looked into, this plan was found to have certain serious drawbacks, and was abandoned. Just at this point the members were informed that some one in Chicago had offered to build a suitable home for the Academy. Matthew

Laflin, with his sons, George H. Laflin and Lyeurgus Laflin, was willing to give such a building with the fulfillment of certain conditions:

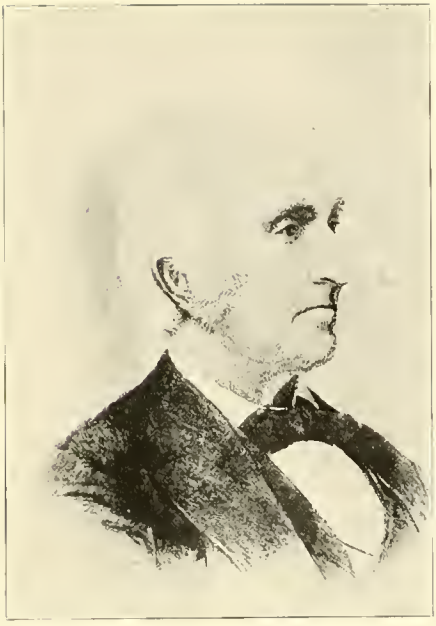
1. That the building should be fireproof.
2. That it should be erected on an appropriate site in Lincoln park.
3. That the museum should be opened to the public without charge.
4. That the plans for the building should be approved by the family of the donor.
5. That the building should be started in the year 1893 and completed in 1894.

The Lincoln park commissioners were willing to enter into an agreement with the Academy and Mr. Laflin, and to designate a plot of ground in the park for the occupancy of the building. Then it was remembered that several years before this time a law had been passed in the state legislature giving authority to the Lincoln park commissioners to provide for the Academy of Sciences within the territory which they controlled and to enter into a perpetual contract. The credit for the passing of this law is due to the wisdom and foresight of William C. Goudy, then attorney for the Lincoln park board of commissioners. The commissioners also agreed to contribute to the expenses of the building provided that they should have in it rooms for their offices in perpetuity. An agreement was made by the three parties interested. The building was to cost $100,000, of which Mr. Laflin and his sons contributed $75,000 and the board of commissioners $25,000. The building should be known as the Matthew Laflin Memorial, and should be occupied chiefly for the purposes of the Academy, a suite of rooms being reserved for the offices of the park authorities. The Academy was to have absolute and perfect control of that part of the building devoted to its uses.

The site and beautiful environment furnished for the building is most desirable. It is on the west side of the park, opposite the opening at Center street. The building was designed by architects Patton and Fisher, and is one hundred and thirty-two feet long and sixty-one feet wide. On the first floor are the entrance hall, library and offices of the Academy and the park commissioners. On the second floor is the great museum hall, fifty-five by one hundred and twenty-eight feet, with a gallery extending around on all sides. The laying of the corner stone took place on October 10, 1893, and addresses were made by Robert A. Waller, president of the park board, Governor John P. Altgeld, Dr. Tarleton A. Bean and Dr. Selim H. Peabody, president of the Academy. A year later the building was completed, and was opened to the public October 31, 1894, with addresses delivered by Mr. Luther Laflin Mills, representing the Laflin family; by Dr. Thomas C. Chamberlin, of the University of Chicago; by Dr. Sarah Hackett Stevenson, and Dr. Selim H. Peabody.

The collections had previously been moved into the building and made ready for exhibition, after being stored near by during the time between their enforced removal from the Exposition building and their placing in a permanent home. The work of removal, renovating and mounting had been done by Mr. Frank Collins Baker, the newly elected curator.

A new period of activity was begun when the society took possession of its permanent home. The collections have grown, interest in its meetings and publications has continually increased, and the museum library is in constant reach of the public and is much used by them.



MATTHEW LAFLIN

With his sons, George H. and Lycurgus Laflin, he contributed the greater portion of the fund with which the Matthew Laflin Memorial building was erected.

ACADEMY OF SCIENCES, LINCOLN PARK

LATER HISTORY OF THE ACADEMY

Ever since the Academy took possession of its home in the beautiful "Laflin Memorial" in Lincoln Park, its growth has been steady and its work widened. During the past two years the policy of the Academy has been changed in important respects, with the purpose of broadening its scope and becoming of greater usefulness and benefit to the public generally. It was decided to render the Academy more valuable and accessible as an educational agency than it had been hitherto, by making the lectures and museum collections available to the children of the public schools.

The curator now supervises the preparation of loan collections to be sent to the schools upon due request. These collections are of two kinds:—those consisting of a natural history series, such as mounted specimens of birds of the Great Lakes, and those called the economic series including such industries as the manufacture of articles from shells and silk worms.

Supplementing this work, adapted to instruction in the school room, is the use of the Museum for the children. Not only do school children voluntarily visit the Museum in great numbers, showing a remarkable interest and intelligence in the exhibits, but classes are brought by their teachers for study, and "nature talks" are given by the curator of the Academy in the public schools. One plan adopted has had especially good results. A course of Saturday afternoon lessons in nature study was organized and conducted by Dr. H. S. Pepoon of the Lake View High School. To this course any class of seventh or eighth grade pupils could send one delegate free of charge. The lecturer reported an immense success with this class of young enthusiasts, and the teachers found that the reports given by the delegates were of the greatest interest and value.

By arrangement with the Extension Division of the University of Chicago, a course of lectures is given at the Academy to teachers, by the professors in that institution, and due credit can be secured for the work done which can be shown by certificates. Friday evening lecture courses are offered to the public, which have been so well attended that often the seating capacity of the lecture hall has been exhausted, and people have been turned away from the door. The educational plans made and now being carried out, though involving great expense, are proving of immense and increasing value, and are many times repaying the effort and money expended, by awakening a general interest in nature studies and in scientific knowledge. It is now hoped that there may be a children's museum built on the ground adjoining the Academy's building.

LOCALIZING THE MUSEUM EXHIBITS

A recent change in the policy of the Executive Board is the limiting of Museum exhibits "primarily to an exposition of the natural resources of Illinois and the adjacent portions of the Mississippi valley," as we learn from the curator's annual report for 1909. With the limiting of the territorial scope of the Academy's interests there is now much greater attention given to making the exhibits of educational value. With this object in view, the work in connection with the schools has been still further developed. For this purpose, too, the museum exhibits have been rearranged and remounted, in such a manner as to attract the visitor and

stimulate his interest. Descriptive labels in large type have been put on the cases, and, with some of the collections, the cases have been provided with false bottoms which raise the objects nearer the glass, and make them more convenient for scrutiny.

It is also the plan of the curator to complete an exhibit of the nesting birds of Illinois, which shows the birds in groups illustrating the different stages of the life of each species. To show the birds thus demands much space, a very elaborate preparation of many specimens for each exhibit, and a large amount of shrubbery, foliage and other growths for detailed and accurate settings.

The publications of the Academy continue to be of a high order, and some have been used as text books by schools and colleges. The attendance at the Museum is large, owing to its excellent location, on holidays the building being actually crowded with visitors. Accessible to one of the great resorts of the city, promoting a large and useful educational movement, and carrying on a splendid scientific work, the Academy of Sciences has become one of the finest institutions now existing in Chicago.

CHAPTER L

THE PARKS OF CHICAGO

THE EIGHT MAIN PARKS—GOVERNING BOARDS—OUTER BELT PARK COMMISSION—SOUTH PARK SYSTEM—FINANCIAL DIFFICULTIES—BEGINNINGS OF LINCOLN PARK—FIRST BOARD OF COMMISSIONERS—SUBSEQUENT HISTORY—LIVE STOCK AND PACKING INDUSTRY—EARLY ACTIVITIES—MARKET PRICES OF THE EARLY DAYS—DRIVING CATTLE TO MARKET—"BULL'S HEAD" STOCK YARDS—UNION STOCK YARDS ESTABLISHED—GREAT INCREASE IN PORK PACKING—BEEF SLAUGHTER HOUSES—REFRIGERATOR CARS—SKETCH OF JOHN B. SHERMAN—PHILIP D. ARMOUR—MATTHEW LAFLIN—SAMUEL W. ALLERTON—GUSTAVUS F. SWIFT—SQUATTER SETTLEMENTS—"KILGUBBIN"—"KANSAS"—CAPTAIN STREETER'S ATTEMPT—SKETCH OF POTTER PALMER—THE SUNSET CLUB.

THE PARKS OF CHICAGO

THERE are eight main parks in Chicago, as follows: Lincoln Park, Jackson Park, Washington Park, Garfield Park, Douglas Park, Humboldt Park, Grant Park, and Marquette Park. Jackson Park and Washington Park, with the Midway Plaisance connecting them, are often referred to as "South Park." These parks are controlled and managed by three distinct park boards, as follows: The Board of Lincoln Park Commissioners, consisting of seven members, the Board of South Park Commissioners, consisting of five members; and the Board of West Park Commissioners, consisting of seven members. The South Park Commissioners are chosen by the Circuit Judges of Cook County, the commissioners of the other two boards being appointed by the governor of the state. Each of these boards has charge of the parks within a particular district of the city, and may levy taxes for park purposes and employ a special police force. The parks of Chicago, consisting of the eight main parks above-mentioned, thirty small parks and squares, and thirty-one playgrounds, cover an area of three thousand, one hundred and sixty-five acres, and the connecting boulevards have a combined length of sixty-three and one-third miles.

PARK COMMISSIONS

In addition to the Park Boards above-mentioned a Special Park Commission was appointed by the Common Council in November, 1899, which has gradually become an administrative body under the jurisdiction of the Council. It has been especially active in the location of small parks and playgrounds. The city owns and cares for many of these, and many small spaces have been improved and provided with amusement appliances for children. This work is continually going on.

bathing beaches being among the later provisions in this beneficent work. The regular Park Commissions have likewise been active in this branch of public service, and the popularity of these multiplied conveniences is demonstrated by the attendance of multitudes of persons, especially of the young. During one year it is stated that the facilities of the small parks established by the South Park Commission alone were used by more than five millions of people. These small parks have cost large sums of money, but the use made of them by the people more than justifies the expense of their creation and operation. Many times the accommodations, ample as they seem, are totally inadequate to meet the demand.

Owing to the straitened condition of the city's finances, the appropriations for the purposes of the Special Park Commission have been reduced, but fortunately the generosity of private individuals has in some measure supplied the pressing wants of the committee. In the "City Manual for 1910," the city statistician, Mr. Francis A. Eastman, says, "Of all the departments of the city government the Special Park Commission is and has been the only one which has solicited and received substantial gifts of money, land, equipment of parks, playgrounds and comfort stations." A gift was made by two public-spirited women each of five acres in the Twenty-seventh Ward for park purposes. The Commercial Club also renewed its annual contribution of two hundred dollars for prizes in athletic sports.

OUTER BELT PARK COMMISSION

In 1903, the Outer Belt Park Commission was authorized by the Board of County Commissioners for the purpose of forming an outer belt system of parks and boulevards for the county and city. The plan as proposed by this Commission is an ambitious one, and when carried out will mean the inclusion within the park area of Chicago of extensive tracts north, south and west of the city, which even in their present condition possess much natural beauty. This new park district as outlined in the report of the Special Park Commission involves the acquisition by the city and county of the land contiguous to the North Branch of the Chicago River, north from Lawrence avenue to the county line, west to the Desplaines River and south along the Desplaines to a point below Riverside; thence west, south and east to the Calumet River and Lake Calumet territory, including the lake and its shores. The creation of many new boulevards and small parks is also proposed in the report of the Commission.

SOUTH PARK SYSTEM

In 1866, Hyde Park was a village adjoining Chicago on the south, the line of separation running along Thirty-ninth street, which at that time was the southern boundary of the city of Chicago. Mr. Paul Cornell was then a resident of Hyde Park, and he with others applied to the Legislature for authority to create a park district within the limits of the town of Hyde Park, and with power to issue bonds and levy taxes on adjacent property. The gentlemen associated with Mr. Cornell in this movement were George M. Kimbark, Chauncey T. Bowen, George R. Clarke, Obadiah Jackson, J. Young Scammon, and J. Irving Pearce.

The Legislature complied with the wishes of the applicants, and without setting specific limits to the proposed park site authorized the creation of a park board,

JACKSON PARK BEACH, SHOWING GERMAN BUILDING

BOAT HOUSE

SCENES IN JACKSON PARK

with power to issue bonds and levy taxes, subject to the approval of the voters of Hyde Park. At the election in the spring of 1867, the voters disapproved of the proposal and the entire scheme for a park system fell through. Another committee of citizens took the matter up again. This committee was composed of the following gentlemen: J. Young Scammon, George C. Walker, George R. Clarke, J. Irving Pearce, Joseph M. Dake, Henry H. Honore, Chauncey T. Bowen, A. Emigh, P. R. Westfall, S. S. Benjamin, John Fitch, and John D. Jennings. The proposal was again presented to the Legislature, this time stating definite limits to the area desired for the park system, thus meeting the objections of voters who opposed the previous bill.

Accordingly an act was passed by the state legislature which became a law February 24th, 1869, and which was afterwards approved by the voters. This act defined the limits of the proposed park generally as follows: Commencing at Fifty-first street and Cottage Grove avenue, the boundary continued south along the latter avenue to Fifty-ninth street east to Hyde Park avenue, north to Fifty-sixth street, east to Lake Michigan, and thence irregularly until it reached Fifty-first street, and along that street to the beginning. Other tracts were also included in the description of the proposed park system, in all amounting to approximately eleven hundred acres. The act permitted the Commissioners to issue bonds for two millions of dollars. These bonds were to bear seven per cent interest, and were sold at a discount of eight per cent. With the amount realized the Board purchased the lands at an outlay of $1,700,000.

Naturally there was great disparity in the values paid for different tracts of lands to be used for park purposes, the prices in some cases only being decided after protracted litigation. In the main, however, the lots were sold at fair prices by the owners without recourse to court proceedings. "Relative to the disproportionate amounts paid for the various tracts," says Andreas, "it may be authoritatively stated that, at the time the first Park Act was passed, property in the district bounded by Forty-seventh and Fifty-first streets, and Cottage Grove and Vincennes avenues, was selling for from one hundred to one hundred and fifty dollars an acre. Therefore it is no illusory idea to consider that the one thousand acres of ground required for park purposes could have been purchased in their present locality at an average of five hundred dollars per acre at that time. But the defeat of the first park bill, and the period that elapsed prior to the second bill passing, thoroughly informed the people of the prospective demand for their real estate for park purposes; and from 1867 to 1872-3 the amounts asked were simply enormous. . . . In many cases four and five times as much as the property was actually worth was asked."

The great increase in property values in the vicinity of the parks, within the time that has elapsed since the period referred to, has far surpassed the most glowing anticipations of the holders of real estate in that region. Had the first bill passed by the Legislature been approved by the vote of the people, and the property then purchased before the park demand had excited the cupidity of owners, there is no doubt but that the land required could have been obtained for less than three-fourths of a million of dollars, whereas the prices ultimately paid were two and one-half times that amount.

The Board of Commissioners was composed of five members. The following

gentlemen were members of the first Board: Paul Cornell, John M. Wilson, George W. Gage, Chauncey T. Bowen, and L. B. Sidway. The Commissioners at once began work on the park, making plans, and setting out large numbers of trees. The fire of 1871 interfered seriously with the work, as the office of the Commissioners was located in the burned district of the city, and it was completely destroyed, together with the plans, atlases and records of every description. Work was suspended for a time, but in the following year new boulevards were laid out and graded, water mains extended, and a new sewer two miles long constructed.

The panic of 1873 again interrupted the progress of improvements, crippling the resources of tax-payers who were compelled by necessity to contest the several installments. There were others who were influenced by a feeling of general hostility to the enterprise. Not until after legal proceedings had run their course over several years were the arrears of taxes finally paid and work on park improvements resumed.

By 1880 the financial affairs of the Park Commission were in a greatly improved condition, interest rate on bonded indebtedness reduced, and park improvements greatly advanced.

In the report of the South Park Commissioners for 1904, it is said that the World's Fair left Jackson Park "practically a ruin." The task of removing the debris of the Fair was a gigantic task. Wrecking companies took only such material as was salable, and left the remainder on the hands of the park authorities. After the wreckage had at length been cleared away, the work of reconstructing the park was undertaken; filling was provided by dredging, and a two hundred acre farm was denuded of its black earth to resurface the park where needed.

BEGINNING OF LINCOLN PARK

Part of the tract now included within the limits of Lincoln Park was formerly a cemetery. "Prior to 1850," says Edward S. Taylor, in a historical sketch prefixed to a report of the Commissioners of Lincoln Park, in 1892, "the city of Chicago had acquired title to most of the land bounded by Webster avenue, Lake Michigan, North avenue, La Salle avenue, and North Park avenue; and also to a tract of land bounded by Diversey avenue, Lake Michigan, Fullerton avenue, and Lake View avenue. The city laid out into cemetery lots all of the land which it owned, bounded by a line which would be Menominee street extended to the lake, Lake Michigan, North avenue, and North Clark street. Nearly all the lots were sold to private individuals and a large number of interments were made therein."

In a paper prepared by Dr. John H. Rauch in 1858 on the subject of intramural interments and their influence on health and epidemics, read before the Chicago Historical Society, he said: "Let immediate steps be taken to prevent all further interments within the corporate limits, and, as soon as practicable, let arrangements be made for the gradual removal, at proper times and seasons, of the remains of those already interred, with the ultimate view of converting these grounds into a public park, which shall contribute to the health, pleasure and credit of our city."

A petition was presented to the Common Council in the fall of 1858, signed by a number of the residents and property owners of the North Division of the city remonstrating against further interments in the cemetery. "This petition,"

HIGH BRIDGE

BEAR PIT FROM WALK

LINCOLN MONUMENT

BEAR PIT FROM ABOVE

A GLIMPSE OF THE LAGOON

GRANT MONUMENT

LINCOLN PARK VIEWS

says Taylor, "was referred to a special committee, which reported recommending the adoption of an ordinance authorizing a conference with the managers of Rosehill Cemetery with reference to the interment of those whom the city should be obliged to bury, and directing that the sale of lots in the city cemetery should cease after May 1, 1859. Such an ordinance was passed March 20, 1859. In pursuance of this arrangement, on the 15th of February, 1860, an agreement was entered into between the city of Chicago and the Rosehill Cemetery Company, for ground in that cemetery.

"On the 10th of January, 1860, a committee representing the citizens of North Chicago presented a paper to the Common Council, in which they used the following language: 'We propose the abandonment of this tract, the north sixty acres, to the city, to be used for a public ground and such other public purposes, if any, as the Common Council may devote it to. We would not advise its sale; such a step, we think, would be unwise.' The sixty acres referred to was so much of the land as was owned by the city lying north of Menominee street extended, and of the ground which had been sub-divided into cemetery lots. Notwithstanding these efforts to stop burials and suggestions to use the land, or part of it, for a public park, no further steps were taken and interments were still continued."

THE MOVEMENT FOR A PUBLIC PARK REVIVED

It was not until the 21st of October, 1864, that an ordinance was passed by the Common Council appropriating all of the land lying between Webster avenue and that part of the land subdivided into cemetery lots for a public park, but no appropriation for the improvement of the land thus set aside for a park was made. In the spring of 1865, Mr. Laurence Proudfoot was elected an alderman from the Thirteenth ward, and he immediately took steps to stop burials in that part of the ground occupied by cemetery lots, and to obtain an appropriation for the improvement of the land north of Menominee street. Proudfoot succeeded, says Taylor, "in obtaining orders from the Council which enforced the prohibition against burials, and also obtained an appropriation of ten thousand dollars for the improvement of the new park, which was named in the ordinance Lincoln Park. Under the direction of the city authorities this money was expended, and the tract laid out in walks and driveways, under the direction of Mr. Swain Nelson, a landscape architect. Additional appropriations were made for the improvement of the park in the years 1866, 1867 and 1868."

THE FIRST BOARD OF COMMISSIONERS OF LINCOLN PARK

By an act of the State Legislature the improvement, management and control of Lincoln Park was vested in a Board of Commissioners, the board consisting of five persons, for a term of five years, their successors to be appointed by the Governor, subject to confirmation by the Senate. The first board was composed of the following persons: Ezra B. McCagg, John B. Turner, Joseph Stockton, Jacob Rehm, and Andrew Nelson. After the establishment and organization of the Board of Commissioners, the control and management of the park passed from the city authorities to the Commissioners.

The boundaries of Lincoln Park as fixed by the Act were generally as follows:

Commencing at the point where North avenue intersects the lake, from there running west to Clark street, along Clark street and North Park avenue to Fullerton avenue, and along the latter to the lake again. "It was provided that all of the land within said limits belonging to the city of Chicago should be appropriated for the park without compensation to the city, and the title to any land not owned by the city might be acquired by purchase or condemnation, the title to be vested in the city. Provision was also made for purchasing or condemning any of the cemetery lots and for the removal of bodies buried therein."

The names of those who served at one time or another, during the next twenty years, as members of the Board of Commissioners, other than those already mentioned as members of the first board, are as follows: Samuel M. Nickerson, Belden F. Culver, William H. Bradley, Francis H. Kales, F. H. Winston, A. C. Hesing, Thomas F. Withrow, L. J. Kadish, Isaac N. Arnold, Max Hjortsberg, Charles Catlin, J. McGregor Adams, Charles B. Farwell, William C. Goudy, Horatio N. May, Andrew E. Leicht, James A. Sexton, John Worthy, and William P. Walker. The first secretary of the board was Edward S. Taylor whose historical sketch of Lincoln Park we have already quoted from. Mr. Taylor was appointed March 16th, 1869, and remained in that capacity for twenty-four years. Before his connection with the board Mr. Taylor had served a term in the state legislature. He became a resident of Evanston in 1860, and continued to reside there until his death in 1905. His end was tragic, having been struck by a train at a railroad crossing in Evanston and instantly killed. Mr. Taylor was a lawyer of ability and was especially noted as a speaker in political campaigns on which occasions he was always found eloquently advocating the cause of the Republican party.

The two pioneer park projects, those of Lincoln Park and South Park, blazed the way for other parks whose formation followed in time. The organization and methods of the parks formed later were in general modeled upon the earlier ones, and it would be unnecessarily tedious to recite the various steps in their history, as they are found in the reports issued by the Boards of Commissioners from time to time, and where the readers may find complete details of the subject.

LIVE STOCK AND PACKING INDUSTRY

The live stock, slaughtering and packing interests are so closely interwoven that the account of them will be given under a common heading. In its earliest stages we find that Archibald Clybourn erected the first slaughter house in Chicago, on the North Branch of the Chicago river on its west bank, near what is now known as Clybourn Junction on the Chicago & North-Western Railway. The original purpose of the establishment of Clybourn's slaughter house was the supply of the garrison at Fort Dearborn with fresh meats.

Soon afterward Gurdon S. Hubbard had some part in the supply of meats to the soldiers and settlers. In his book of "Reminiscences," Hubbard says: "The winter of 1830 and 1831 was the most severe one I ever experienced in the Indian country, and it was always remembered and spoken of by the early settlers as the 'winter of the big snow.' I was employed in gathering together hogs to drive to Chicago to kill and sell to the settlers and soldiers at Fort Dearborn, a business in which I was then regularly engaged. . . . On the 7th of November, 1830, I started out to gather up my hogs, which were in small droves at different points

on the road [between Danville and Chicago]. The snow was then about seven inches deep, and it continued to fall for four or five days. I had men to help me, and wagons containing corn for the hogs, in which were also our blankets and utensils. When we left Beaver Creek marsh the weather had changed, and the day was rainy and misty. At dark we had reached the Kankakee and camped in a little hollow, having left the hogs a mile or so back. It rained hard a portion of the night, and then the wind changed and it began freezing. The water gradually worked under the blanket and buffalo robe in which I had wrapped myself, and on attempting to rise I found myself frozen fast to the ground, and had much difficulty in freeing myself.

"In the morning we gathered the hogs and drove them to the hollow in which we had camped, where we left them with our horses and started to find Billy Caldwell, who I knew was camped somewhere near Yellow Head Point, which was about six miles from Kankakee. Following up the creek we found him without difficulty, and were hospitably received. . . . We remained at Caldwell's a day and night, when we again started the hogs for Chicago, where we arrived in about thirty days."

Hubbard describes some of the difficulties encountered on the journey. "The snow was about two feet deep on a level and four or five feet in the drifts," and on the way he had lost some of the hogs. After killing and delivering the pork he started to return to his trading post at Iroquois, and searched the route for the lost hogs and actually found one of them under the snow where the animal had managed to subsist upon the roots of grass.

Mr. George W. Dole, one of Chicago's early commission merchants, engaged in the packing of beef in 1832, and some of his products found their way to New York by way of the lake route. A year or two later Gurdon S. Hubbard had a packing house at the corner of Lake and La Salle streets, afterwards, in 1837, moving his establishment to the corner of Kinzie and Rush streets. Sylvester Marsh was one of the pioneers in the packing industry, joining with Hubbard for a time in his operations.

In later years, in 1883, Mr. Marsh was a witness before a Senate committee in Washington, and was asked a question about the prices of pork and beef in the early days of Chicago. He replied that, in 1841, while work on the Illinois and Michigan Canal was in progress, he paid two dollars a hundred pounds for all pork that weighed two hundred pounds or over to the animal, and one dollar and fifty cents for such as weighed less; and the same prices prevailed for beef, the dividing line of weights being placed at six hundred pounds to the animal. In 1848, the Chicago *Democrat* printed a review of the packing business, in September of that year, in which it was estimated that eighteen thousand barrels of beef would be packed that season.

MESS PORK IN THE EARLY DAYS

A humorous incident of the trade in packing house products is related by a letter writer of the early days. The letter is written from Racine, Wisconsin Territory, under the date of December 6, 1836, and is addressed to the editor of the Milwaukee *Advertiser*. "I went to Chicago a few days since," says the letter writer, who seems to have kept a store in Racine, "and purchased two barrels of

Mess Pork at the highest price, and had them shipped to this place. One of them I sold without opening, the other was sold out by the pound. When the latter barrel was about two-thirds gone, the clerk had sold out of it six tails, and declared there were nine tails still left in the barrel,"—a rather large proportion of the less desirable parts of the animal.

A customer came in a few days later and proposed buying the pork left for the sake of getting the barrel. The proprietor took him into the back part of the store, and the customer on examining the remaining contents picked out from one side fifteen pigtails, and then remarked that that was enough, he would not take it. "There having been considerable talk and excitement made about it," continued the letter writer, "it was finally concluded to take an inquest over the tails of the deceased, and the next day the neighbors were called in, and upon a careful examination there were found to be thirty-nine tails left, making in the whole forty-five tails in one barrel of mess pork." [1]

This result was considered a legitimate cause of complaint, and, quite in the modern spirit, the dealer stated his grievance in a letter to the paper, where it might be permanently recorded for the amusement and instruction of posterity.

DRIVING CATTLE TO MARKET

The man who made over three and a half million of dollars in the farming business was one of the early settlers of Illinois. His name was David Rankin, and he first appeared in Warren County, Illinois, in 1836, with his father's family, he then being a boy eleven years of age. Ten years later in 1847, he says in his little book of Reminiscences, published in 1909, he drove a "bunch of cattle," about fifty head, to Chicago. He drove them across the prairie so that they could feed as they traveled, and they would go to the edge of the timber to stay during the night. The distance over which the cattle were driven was two hundred miles. The stock yards at Chicago, he says, "were not much larger than the average loading and unloading yards of the small town of today, and it did not cover one-half an acre of ground."

The old "Bull's Head" stock yards, situated at the corner of West Madison street and Ogden avenue, was opened in 1848. Elias Colbert, in his work published in 1868, entitled "Chicago," says that for a few years buyers and sellers were satisfied to drive their cattle and hogs to and from these yards—for they had no railroad connection,—but as the trade increased the yards were found to be too small, and the driving of live stock through the streets became a serious nuisance. In 1856, John B. Sherman located yards on Cottage Grove avenue, convenient to the tracks of the railroads running along the lake shore. These yards were called the "Myrick Yards," and their capacity was large for those days. They could care for five thousand cattle and thirty thousand hogs, and were considered "something wonderful" at that time. Other yards were opened convenient to other railroads, but it became apparent that these scattered receiving yards, located without much reference to slaughtering establishments, involved not only waste of time but also loss of stock and inconvenience to residents consequent upon so much driving to and fro.

[1] Chicago American, Dec. 17, 1836.

ESTABLISHMENT OF THE UNION STOCK YARDS

The idea of a Union Stock Yards took form in 1864 by the incorporation of the Union Stock Yards and Transit Company, with a capital of one million of dollars, the principal portion of which was subscribed by the nine railroads chiefly interested in the carrying of live stock. A special charter was granted by the State Legislature, under date of February 13, 1865, with the following gentlemen named as incorporators: John L. Hancock, Virginius A. Turpin, Rosell M. Hough, Sidney A. Kent, Charles M. Culbertson, Lyman Blair, Martin L. Sykes, Jr., Timothy B. Blackstone, Joseph H. Moore, John S. Barry, Homer E. Sargent, Burton C. Cook, John B. Drake, William D. Judson, David Kreigh, and John B. Sherman. Mr. Blackstone was chosen president, and F. H. Winston, secretary. The corporation purchased three hundred and twenty acres of land on Halsted street in the town of Lake, from John Wentworth, paying him the sum of one hundred thousand dollars for the land.

PORK PACKING

The business of pork packing was not so important as compared with that of beef, during the period previous to 1858. The city of Cincinnati, then popularly known as "Porkopolis," was far ahead of Chicago in pork packing. In 1858 and 1859, Chicago began to make great strides in this industry, and by 1862 had overhauled and passed the production in Cincinnati, and by 1864 had more than doubled the record of that city. But in 1869, there was a marked decline in the production. Indeed the *Tribune's* review of that year made the statement that "there is no disputing the fact that a revolution is working in the packing business. The hogs can be taken alive to the seaboard, killed there in all weathers by the use of ice, the meat packed on board ship, and cured on the voyage across the Atlantic, thus saving thirty or forty days on storage, and the use of capital in the process of curing," and adding a warning that unless our packers accommodate themselves to these conditions, "the business in Chicago will soon be numbered among the things that were." This gloomy view was scarcely warranted by the facts as later developments proved. Previously to 1860, packing pork and beef in barrels for shipment was done only in the winter time, but in this year two houses entered upon "summer packing," as it was called, and in the course of the season twelve thousand hogs were thus consumed. The war coming on in 1861 gave a great impetus to the industry, contractors for army supplies purchasing very heavily in this market. During the season of 1864-5, there were packed in the various packing houses some ninety-five thousand head of cattle. This increase went on until the year 1869 when there was a serious decline in the product as referred to previously.

After the period of the great fire of 1871, which proved only a slight interruption to the business, for none of the packing establishments suffered any loss from the fire, there was a new start taken, and thereafter the history of the live stock industry, and the packing of cattle and hogs, was one of unexampled growth and development. After the establishment of the great yards by the Union Stock Yards and Transit Company, all the great packing houses established themselves on the adjoining tract west of the yards, and absorbed the offerings by sellers in great part. The shipping of live stock to eastern points also took a large fraction

of the receipts, as can be seen by consulting the tables of statistics in the annual reports of the industry.

ARRIVAL OF BEEF CATTLE

An account of present day conditions is given, as follows:

A corps of buyers representing many packing houses is present at the stock yards each morning, looking over the arrivals of the previous twenty-four hours, and making selections. Having come to terms with the sellers, usually commission men engaged in that business, the cattle are separated and driven to the pens of the slaughter houses. These buyers are experienced in judging of the quality of the cattle for beef and make their selections with marvelous rapidity and certainty. In these pens the cattle are usually given twenty-four hours of rest, and refreshed with abundance of drinking water. This is not only a humane provision, but the quality of the beef is improved thereby. If they have been assembled in these pens in the heat of summer, they are also treated to shower baths from great streams of water directed over their backs, and the evident enjoyment of the animals during this process is a sight to remember. In former years the slaughtering of animals was governed by weather conditions, but scientific refrigeration has made all seasons the same, and operations can be carried on as well in the extreme hot weather as in cold.

THE BEEF SLAUGHTER HOUSES

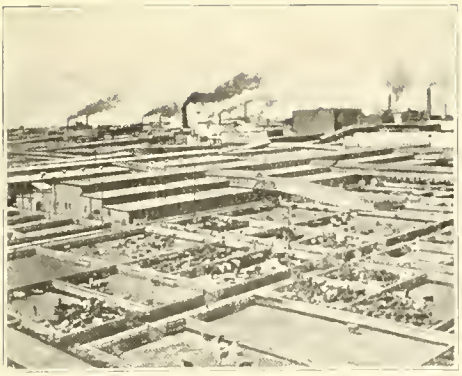
From the pens of the stock yards close at hand the cattle are driven into stalls adjoining the slaughter house where they are quickly despatched, and in due course of time arrive at the refrigerators, or "coolers," as they are termed. They are now in the first stages of the process which furnishes the "raw materials out of which men are made,"—food for carnivorous mankind. Having reached the cool interiors of the great refrigerators they are allowed to remain a suitable lapse of time and then shipped to their destination.

Refrigerator cars are drawn up along a loading platform, and the beef "sides" suspended on trolleys are brought out of the coolers and hung within them. The ends of these cars are furnished with ice boxes, which are filled from above with broken ice and salt, and the car being closed and sealed it is ready for its journey. If the distance is long there are stations found on the route where the ice and salt are replenished, and the contents are thus preserved as cool and sweet as when they left the packing house. The transportation of fresh beef and mutton is carried on as a special branch of freight service on all the great trunk lines, and trains devoted to this service move at a rate little short of express speed throughout the journey.

SKETCH OF JOHN B. SHERMAN

No account of the Union Stock Yards of Chicago would be complete without some mention of John B. Sherman whose long connection with that enterprise is well known among those familiar with the cattle industry.

John B. Sherman, who has been called the "father of the stock yards," was a native of New York state, where he was born in 1825. "He learned to read, write and cipher," says an account printed in the South Park Commissioners' Report for 1904, "but not much more; still he was extremely quick and accurate



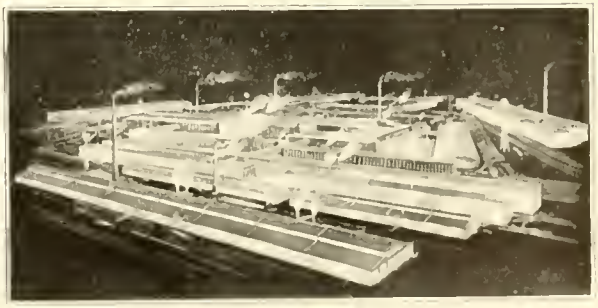
From The Book of the Board of Trade, 1900

CHICAGO UNION STOCK YARDS

From The Book of the Board of Trade, 1900

EXCHANGE BUILDING, CHICAGO UNION STOCK YARDS

Containing headquarters of the Union Stock Yards & Transit Company, The Chicago Live Stock Exchange and many commission firms.



From The Book of the Board of Trade, 1900

WORKS OF THE McCORMICK HARVESTING MACHINE COMPANY

in figures all his life. Like most Americans who have made names for themselves, he went to school to Nature, and she made him see realities and to see them clearly. The Hudson river and its mountains were ever before him in his impressionable years, and his calm, broad mind during the rest of his life bore evidence of the noble visions of his youth."

Mr. Sherman began as so many of the successful men of our time began as a farmer's boy, but early in life he obtained a situation in a small country store. He married Miss Ophelia Graham and the result of this union was a family of four children. The eldest of the family was Margaret who became the wife of Daniel H. Burnham, the well known architect and Director of Works of the World's Columbian Exposition.

Mr. Sherman was one of those who was seized with the California gold fever, and in 1849 made the journey to that far distant land by way of Mexico. He returned within six months with some fifteen thousand dollars in gold, the result of his work in the mines. Soon after he removed to Illinois and carried on a farm on Rock River; but after some years he became interested in the stock yards then situated at Bull's Head, at the corner of West Madison street and Ashland avenue in Chicago. From there he transferred his activities to the old Myrick stock yards, at Twenty-ninth street and Cottage Grove avenue, and here he earned what in those days was considered an ample fortune. When in 1864 the Union Stock Yards were proposed, a consolidation of the four existing yards was effected, and Mr. Sherman laid them out. This work accomplished he retired from business going back to Dutchess County, New York, his native place, intending to settle there permanently.

The new yards, however, did not prosper and the capitalists of the East who owned them insisted on his returning and taking charge once more He reluctantly consented and removed his family to Chicago, and here he remained until his death in 1902. The Union Stock Yards, under the management of Mr. Sherman, began to prosper at once after he had again taken hold; and since that time have become one of the most certain and satisfactory investments of the country. They are now the greatest live stock markets in the world.

Mr. Sherman became a member of the South Park Commissioners in 1877, and kept up his connection with that board for twenty-five years, part of the time serving as its president. He refused nomination for all other public offices which were offered to him, including the mayoralty of the city and the governorship of the state. Upon the occasion of his death the South Park Commissioners passed suitable resolutions in one of which it is stated, "that in the death of John B. Sherman, the members of this Board lose a friend and associate who will be long remembered with affection and respect, and the public a servant of distinguished fidelity and zeal."

SKETCH OF PHILIP D. ARMOUR

The manufacturing and commercial successes of Philip D. Armour were so great that he was the first man, it is said, to have been called "a captain of industry." In connection with the products of his packing establishment his name has been carried to the ends of the known world. His deeds of philanthropy have added greatly to his fame among a host of Chicago citizens who enjoy a similar distinction.

Like many other well known men in the commercial world, Mr. Armour was brought up on a farm. He was born in New York state in 1832. He received a good education and as he grew older he became fascinated with the stories of Western adventure and the prospects for wealth in the "land of promise." When the California gold excitement overspread the land young Armour was seized with the prevailing fever, and in 1852, then only nineteen years of age, he joined a little company formed to journey overland to the new El Dorado. Six months were consumed in making the trip, and the hardships encountered severely tested the courage, perseverance and endurance of the Empire State farmer boys.

Mr. Armour returned to the East after an absence of four years, having reversed the usual order by bringing with him a substantial accumulation of wealth. It is related of Mr. Armour that while he was away in California he developed an ambition to buy the best farm in his home region, and that he intended to devote the money he had gained to this purpose. But during the few weeks he spent on the visit to his parents he changed his plans. "During his rugged experience in the mines," says the writer of a sketch relating to Mr. Armour, "he had 'found himself.' He had discovered his wonderful executive ability, his mastery over other men, and he sought a greater field than a farm for the most profitable employment of his abilities.

"In following out his new purpose, Mr. Armour again turned his face to the West. He went first to Cincinnati. Then he located in Milwaukee. There he formed a partnership in the commission business with Frederick B. Miles. This firm continued until 1863, when Mr. Armour became associated in the pork-packing industry with John Plankinton. This venture was the turning point in Mr. Armour's career, since Mr. Plankinton for many years had been connected with Frederick Layton, one of Milwaukee's pioneer residents, and not only stood high and commanded the respect of the citizens of Milwaukee, but he had built up a large industry."

The partnership with Mr. Plankinton resulted in a great business success, and during the Civil War the firm realized large profits. A few years later Mr. Armour extended the field of his operations into the grain business, and in 1875, Mr. Armour removed from Milwaukee and took up his permanent residence in Chicago. A branch of the packing business was established at Kansas City, Missouri, the main office and plant being now at Chicago. The growth of the business of Armour & Company, as it was now called, was marvelous, the firm being reckoned as the largest of its kind in the world. Mr. Armour was its active head, and though he intrusted many large responsibilities to his associates, its general policy was directed by him.

Mr. Armour gave largely to charitable and educational institutions, his chief benefaction being that of the Armour Institute. The scope and purposes of this institution will be described in a separate paragraph. Mr. Armour's death occurred January 6, 1901. One of his surviving sons, J. Ogden Armour, continues at the head of the great business which the genius and enterprise of his father created.

MATTHEW LAFLIN

The first venture of Matthew Laflin in a business way in Chicago was in the manufacture of powder, and he found a ready market for this article during the

work of construction on the Illinois and Michigan Canal. He came to Chicago in 1838, and in that and the following year he made his residence in old Fort Dearborn. He soon began buying real estate which eventually made him a man of great wealth. "He built the original Bull's Head Hotel, on Ogden avenue and Madison street, as a resort for stock men, around which he built barns, sheds and cattle pens," says Blanchard. "The Bull's Head tavern was torn down in 1876, after having been used as an asylum for inebriates, called the Washingtonian Home."

In 1892, Mr. Laflin, with his two sons, George H. Laflin and Lycurgus Laflin, contributed towards the erection of a splendid building for the use of the Chicago Academy of Sciences. This building, known as the "Laflin Memorial," is situated in Lincoln Park at the Center street entrance to the park. It was built at a cost of one hundred thousand dollars, of which amount Mr. Laflin and his sons contributed seventy-five thousand dollars.

SAMUEL W. ALLERTON

Successful business men are often enough found to have been "farmers' boys." when their history is inquired into, and Samuel W. Allerton was one of these. He was born in New York state in 1833, but when about twenty years of age he came to Illinois, and engaged in buying cattle and shipping them to market. He had had some experience already in his native state in this line of business. An anecdote is related of him in a volume recently published, regarding an early venture made by him. The first hundred cattle Samuel ever bought, runs the story, he sold in New York. It was the worst market there had been in ten years when his cattle arrived, and, after settling up with his commission merchants, he found that he had lost seven hundred dollars on his venture. This so preyed upon his mind that he fell ill. An elderly uncle, who had been successful in business, said to him, "My boy, you are pretty sick, but don't lose your courage. I never found but one dead sure thing, and that was hoeing corn at fifty cents a day. If you make money you must sometimes lose it. Try it over."

In 1860, Mr. Allerton became permanently located in Chicago, where he established a packing house, and for many years conducted a successful business. At this time, though not engaged in the packing business, he attends to his extensive business interests with all his old time vigor. Mr. Allerton has always taken part in a prominent way in the discussions of public questions, especially those of a business or economic character. For many years he was quite a regular attendant at the meetings of the Sunset Club, where his voice was often heard in the discussions, and always with great attention and respect.

THE HOUSE OF SWIFT AND COMPANY

The great packing house of Swift and Company was incorporated in 1885. The founder and head of the business was Gustavus F. Swift, a native of Massachusetts. He was the president of the company after it became incorporated, and so remained until his death in 1903. Afterwards his son Louis F. Swift became president, and has continued in that position down to the present time.

SKETCH OF GUSTAVUS F. SWIFT

In an editorial notice of Mr. Swift, printed in the *Tribune* after his death, it was remarked: "He began life in the humblest way among the sand dunes of Cape Cod; he closed it as one of the great powers in the industrial world. He had the characteristic qualities of the Yankee—industry, frugality, sharp sightedness, clear headedness, and cleverness in molding circumstances and managing affairs to his profit. He had also the qualities of the Cape Cod Yankee—quiet resoluteness, concentration upon a given purpose, reticence, and almost diffidence. He talked little but accomplished much, and let the results talk for him."

The life chronology of Mr. Swift is shown at a glance in the following list of dates:

1839—June 24th, born at Sandwich, Cape Cod, Massachusetts.

1861—January 3d, married to Miss Annie M. Higgins.

1861—Left his father's farm and set up a butcher shop in Barnstable, Massachusetts.

1869—Removed his business to Brighton, Massachusetts, and enlarged it, trading in cattle between Buffalo and Boston.

1872—Formed partnership with J. A. Hathaway, and removed to Albany, New York.

1875—The firm of Hathaway and Swift transferred their business to Chicago, which henceforth was the firm's business headquarters and Mr. Swift's residence.

1878—Firm name changed to Swift Brothers & Company. Slaughter house established and dressed meat first shipped in refrigerator cars.

1885—Swift and Company incorporated.

1888—First branch established at Kansas City, Missouri.

1890—Branch established at Omaha, Nebraska.

1892—Branch established at St. Louis, Missouri.

1896—Branch established at St. Joseph, Missouri.

1897—Branch established at St. Paul, Minnesota.

1902—Branch established at Ft. Worth, Texas.

1903—Mr. Swift died at his home, 4848 Ellis Avenue, Chicago.

WORKS OF CHARITY

Mr. Swift was generous towards institutions fostered by the Methodist church, of which he was a member. A list of his benefactions would include the names of numerous churches and institutions widely scattered. It was said at his funeral that his name was hidden in the corner stones of "one thousand churches and colleges." He left a colossal fortune at his death, a portion of which he directed to be expended for charitable purposes in such manner and to such persons and parties as his wife might see fit.

MR. SWIFT IN BUSINESS LIFE

Mr. Swift was a man averse to publicity, preferring to be unknown in any other way than through his ordinary business connections. He was attentive to details and a keen critic of the men in his employment, whether they were butchers in a slaughter house, buyers of cattle in the stock yards, or those engaged in the

SCENES IN GARFIELD PARK

counting room. Often he was a hard master, but his thorough methods won the respect of all with whom he had business relations. In dictating letters of instructions it is related that after completing them he usually added the words, "Please answer this and say that you have carried out these instructions."

A man of vast and various capabilities his genius for commercial transactions and his excellent judgment placed him high among the "captains of industry" of our time. At his death there were in the various establishments controlled by his company, upwards of seven thousand employes, and the yearly business of the combined houses owned and operated by Swift and Company was upwards of one hundred and sixty millions of dollars.

SQUATTER SETTLEMENTS

During the period of the rapid growth of the city, along in the fifties and sixties, there were many instances of unauthorized occupancy of building sites by persons unable or unwilling to obtain them by the usual methods of purchase or lease. Thus "shanties," or rude dwellings, were frequently erected on vacant lots and occupied before the owners of the land were aware of the trespass upon their property. Persons thus taking possession of building lots to which they had no title were called "squatters."

In an article printed in the Chicago *Times* in August, 1865, some account is given of the activities of the lawless class above referred to. "A squatter clings to a piece of ground," says the writer of the article, "with bull-dog tenacity. The unlucky owner of the property might as well attempt to depopulate half the city as to get them off his land. . . . The shanty once erected, the pigsty built and the garden fenced in and planted, the squatter is as confident of his right of possession as if he held a deed of the land."

"At the head of the list of the squatter villages of Chicago," says the writer, "stands 'Kilgubbin,' the largest settlement within its limits. It has a varied history, having been the terror of constables, sheriffs and policemen in days that are past. . . . Its first site was on North Kinzie street, westward along the river *ad infinitum*. It numbered several years ago many thousand inhabitants, of all ages and habits, besides large droves of geese, goslings, pigs and rats. It was a safe retreat for criminals, policemen not venturing to invade its precincts, or even cross the border, without having a strong reserve force. . . .

"The authorities finally got the better of them, and they gained more respect for the star of authority. Civilization pressed close in upon them, and the squatters emigrated slowly but surely westward. Rude land owners and sheriffs rushed in upon the shanties and demolished them; building mills, dwellings and manufactories on the old site of Kilgubbin. The squatters soon settled on other lands and reared other villages. The locality now known by that euphonious name is situated in the West Division, northward of Chicago avenue, to the point where Carpenter street strikes the river. It extends north, south, east and west, in so many offshoots that it is difficult to define its exact limit. Where shanties are there is Kilgubbin. The present patch contains from forty to fifty acres of land, most of which is of doubtful title, in actual litigation, or owned by Eastern capitalists, who care little how it is occupied, so long as the growth of the city continues yearly to enhance its value."

There were other "patches" in various sections of the city which in 1865 had a population of some two hundred and thirty thousand and covered an area of about twenty-four square miles. There was a region known as "Kansas," which though it could not strictly be called a squatter village, was referred to by the opprobious term of "patch," though most of its inhabitants paid a small rent for their shanties, or the land upon which they were built. "Kansas" was situated on the west side of the river, between Desplaines and Halsted streets, in the neighborhood of Harrison. Like Kilgubbin, Kansas had been a place of terror to the authorities, but its condition gradually improved, and its inhabitants, it was said, became "quite orderly in their habits," and many of the men became industrious laborers. It was estimated by persons well informed in regard to these squatter settlements, that "at least fifteen thousand people reside in them within the city limits. This does not appear from a casual observation to be too great an estimate."

CAPTAIN STREETER'S ATTEMPT TO ESTABLISH TITLE

As a preliminary to an account of the attempt made by one George Wellington Streeter in recent years to establish a title to lands on the north shore, it will be necessary to describe the early shore lines upon which the contention made by Streeter was based. When the "Wall Survey" of the lake shore north of the Chicago river was made in 1821, a "meander line," or shore line, was shown on the map accompanying that survey, running in a generally north and south direction. This meander line began at the Chicago river, continuing north nearly parallel with and a short distance east of St. Clair street, as far as Superior street, where its course was slightly deflected towards the west.

Other surveys were made at a later time, but in the contentions made by Streeter, hereafter referred to, he ignored them completely, basing his claim entirely upon the old survey of 1821. For example, a survey in 1833 placed the shore line at some distance farther east than that shown on the Wall map, owing to accumulations of sand and gravel which had formed a considerable tract of dry land. There were other surveys made afterwards at different times, some of them showing advances and others retrogressions of the shore line, one as late as 1883, which established a line nearly one-third of a mile east of the original survey. The owners of abutting property made claims to these accumulations and took nominal possession of the land by virtue of their riparian rights. These rights were eventually recognized and confirmed by law though much litigation was found necessary to establish them. While upon this subject it may be remarked that in later years the Lincoln Park Commissioners have come in possession of all these claims to riparian rights beyond a certain limit, and they have built a driveway along the water's edge which now marks the boundary of these made lands on the east.

When the tract of dry land was thus formed by the accumulations of sand beyond the old shore line it was promptly appropriated by squatters who here erected rude shanties and obtained a livelihood by fishing and collecting debris which had floated ashore, and which had a salable value. The tract became known as "The Sands," and in time became quite populous with a nondescript class of people who defied the authority alike of the city police and the officers of the courts.

From Harper's Weekly

A RAID ON SIGNS. AN INCIDENT OF JOHN WENTWORTH'S ADMINISTRATION

By 1857, when John Wentworth was mayor, "The Sands" had obtained such an evil reputation that the mayor determined to clear the tract of its objectionable occupants, who had no legal title to any portion of the land, as the place had become the scene of constant disorder and a menace to the peace of the city. Mayor Wentworth ordered a raid on the Sands, and the police, led by the mayor himself, descended upon the place, razed many of the shanties to the ground, and ordered many of the others to be burned. This put an end to this "plague spot," as it was called, for the time at least, and the lawless inhabitants were driven away to make trouble elsewhere. This action of Mayor Wentworth was regarded as one of the notable acts of his administration.

AN INCIDENT IN THE EXPULSION OF THE SQUATTERS

One of the owners of the land upon which the shanties of the squatters were built was a man who did not discriminate very closely as to the character of the occupants so long as they would pay rent as some of them did. Hearing of the proposed demolition of the shanties the owner had instructed his agent to mark with red chalk those houses whose occupants had not paid rent, in the expectation that the police would destroy them only, and leave the others. On the day when the demolition was to take place "Long John" appeared on the scene in a carriage to superintend operations. One Bill Reese a famous character of those days, approached the carriage and said: "Long John, old man, I did not know that you could be 'played for a sucker' and become a rent collector."

Reese then informed the mayor that the houses the occupants of which had not paid their rent were all marked with red chalk, as a sign to the police that they were the only ones to be demolished. The bluff old mayor could not recall that any such conditions had been mentioned in his order and he waxed furious in his wrath. "Bill," he said, "is there no more red chalk in town?" Upon this hint some red chalk was quickly procured, and under the mayor's direction every house in the district inhabited by the squatters was marked, recalling Morgiana's famous device of a similar character in the Arabian Nights' story of the "Forty Thieves."

Very soon thereafter a force of policemen and firemen appeared and were seen to be tearing down all the houses as they came to them without distinction. The owner's agent came running to the mayor appealing to him to save the houses of the rent payers; but Wentworth, with the strength of a giant, threw him down in one corner of the hack, at the same time remarking that it pained him to see him so much excited. Every house of course bore the red chalk marks, and they all went down in the general destruction. After the operation was completed the mayor turned to the agent, now entirely subdued, and said: "Give my compliments to your boss and tell him that 'Long John' is the best rent collector in Chicago, but his terms are very high."

We now come to the time when "The Sands," now much increased in extent, again became the scene of a determined attempt to establish claims to title and occupancy, which is described in the next paragraph.

CAPTAIN STREETER ARRIVES ON THE SCENE

In July, 1886, while navigating the lake in a small sailing craft in the vicinity of that portion of the north shore just described, Captain Streeter was driven ashore

in a storm on "The Sands," at a point near the foot of Superior street; and after the storm had subsided he found that his vessel was lying high and dry at some distance from the open water. Finding it impossible to get the vessel afloat he used it as a dwelling, while in the meantime the sand continued to accumulate until he found himself at an increased distance inland.

Some of the adjacent land owners suspecting that he intended to make a permanent residence on the spot, and thus establish a color of title to the land, attempted by usual court processes to expel him from the neighborhood. In fact Streeter did assert a claim by "right of discovery" as he said, and his actions and exploits during the following years became the subject of much newspaper comment and description. It was found, however, to be a very difficult matter to eject Streeter, and for some years he and a few followers held the authorities at bay.

The tract of made land, extending from the Chicago river to Chicago avenue, and from the old shore line to the new line at the edge of the water a quarter or a third of a mile to the eastward, was called by Streeter the "District of Lake Michigan." He pretended that this district was not in the state of Illinois, and that he owed no allegiance to any authority except that of the United States. In common parlance the tract was referred to as "Streeterville." Of course Streeter's fantastic claims, though pressed on the Washington authorities, received no recognition.

Following his claim of ownership to the "District of Lake Michigan" Streeter subdivided the tract into lots and found buyers for many of them among such persons as were willing to accept a title from such a dubious source. Streeter had long since exchanged his stranded boat for a more substantial shanty near the water's edge, and having gathered a few followers about him held the "fort," as he called it, against all who would dispute his claim. In 1900, the property owners, having formed a "protective association," built another shanty in the vicinity of Streeter's, and installed a couple of watchmen as a kind of besieging force. On one occasion a few rifle shots were exchanged and one of the watchmen employed by the property owners was killed.

Streeter had thus rendered himself amenable to a criminal charge and the police promptly arrested him and his whole party. It was now possible to prosecute the interlopers as criminals, and accordingly they were placed on trial and three of them, including Streeter himself, were sentenced to various terms in the penitentiary. This put an end to the occupancy of the tract by unlawful means. The war was continued, however, in a fusillade of printed circulars, open letters, and much bombastic talk reported in the newspapers, by Streeter's followers, and by Streeter himself after he had served his term in the penitentiary. Little, however, is heard of the matter in later days, there being little or no life left in the contentions so vigorously made during a period of some twenty years.

While Streeter was incarcerated in the penitentiary his wife, who had remained in the occupancy of the shanty, died under distressing circumstances of loneliness and neglect, and although there had been no public sympathy with Streeter in his absurd claims there was a very general sympathy felt for him in the loss of his devoted consort.

After having completed his term in the state's prison Streeter engaged in the ordinary activities of private life.

SKETCH OF POTTER PALMER

Potter Palmer was born in New York state in 1826. His boyhood was spent on a large stock farm owned by his father. After receiving a common school education young Palmer, at the age of eighteen, entered a country store as a clerk, and in three years became manager of the establishment. Upon reaching his majority Mr. Palmer went into business for himself from which time he was steadily successful. In 1852, he came to Chicago and opened a dry goods store. He startled his competitors, it was said, by inaugurating new policies in merchandising and these resulted in a greatly increased trade for his store. He announced "that any patron who had bought goods at this store and desired to exchange them for other goods, or to return them and have the purchase money refunded, would be accommodated; and that goods might be taken home and inspected before purchase."

Through these new methods his business prospered, though it was freely predicted that they would bring ruin to his business. "At the end of ten years he was known as the individual proprietor of the largest mercantile business in the Northwest." He then sold his business to Marshall Field and Levi Z. Leiter. After a period spent in travel Mr. Palmer returned to Chicago and invested largely in real estate. These investments led in the end to his becoming the most forceful leader in the upbuilding of the city.

In 1869, Mr. Palmer began the erection of the first structure known as the Palmer House, at the northwest corner of State and Quincy streets. It was eight stories high and contained two hundred and twenty-five rooms. This hotel was opened on the 26th of September, 1871, only thirteen days before the great fire which left it a smouldering heap of ruins. After the fire Mr. Palmer decided to rebuild his hotel but chose a new site on the southeast corner of State and Monroe streets. It was built in a strictly fireproof manner and remains today one of the safest and most popular hotels in the city, though of course greatly surpassed in size and elegance by the modern structures of later years.

Mr. Palmer's principal achievement was changing the entire channel of the retail business of the city from Lake street, which runs east and west, to State street, running north and south. State street at that time was a narrow, ill-paved and ill-drained street, lined with unsightly, irregular structures. Mr. Palmer purchased about a mile of frontage on this street, and in less than four years, after many difficulties, he accomplished the object he had in view. State street was widened twenty-seven feet, and he erected some thirty-two of the finest commercial buildings in the city, including the first Palmer House. When the great fire swept the city it seemed at first as if the fortune of Mr. Palmer and the future of the city had gone down in one common ruin.

But Mr. Palmer had won a great reputation as a man of high integrity during the previous years of his busines life in Chicago, and he was able to make a loan from a large life insurance company, the largest that at that time had been made to any individual,—$1,700,000. In a few years Mr. Palmer had completely recovered his financial footing, and at his death on the 1th of May, 1902,

was rated as a millionaire. Mr. Palmer served as a South Park Commissioner during the early constructive period of the South Side system, from February, 1871 to April, 1874. During the many years that he was a resident of Chicago Mr. Palmer took part in most of the projects for the improvement of the city, and for the advancement of its industrial, artistic and social life. He was one of the incorporators of the Board of Trade, one of the first subscribers to the May Festivals, one of the three creators of the Interstate Industrial Exposition, and was a director in the World's Columbian Exposition. President Grant offered Mr. Palmer the cabinet portfolio of Secretary of the Interior but he declined the honor.

THE SUNSET CLUB

The object of the Sunset Club, organized in 1889, was stated to be, "To foster rational good-fellowship and tolerant discussion," and its requirements for membership were that any "genial and tolerant fellow" might join on approval of the executive committee, and the payment of the nominal dues. Mr. William W. Catlin, a young man of great energy and tact and much interested in the questions of the day, was the moving spirit; and the career of the Club, extending through several years of activity, was a tribute to his ability in the conduct of such an organization. The Club disbanded in 1895, but was revived again in 1898, and finally disbanded in 1901. The series of "Year Books" issued by the Club contain a great number of the printed addresses made at the sessions of the Club, covering a wide variety of topics.

A humorous "declaration of principles," consisting of some thirty or more statements, nearly all in the negative form, as "No club house, No constitution, No dress coats, No preaching, No resolutions, No vituperation, No personalities, No late hours," etc., were printed on its programmes. A newspaper wag called it "an Unprincipled Club," because of the declaration formulated by "Father" Catlin, as above stated. There was usually a large attendance at its dinners, and old timers recall those occasions as highly enjoyable as well as profitable.

The Sunset Club was modeled after the Twilight Club of New York, with "some improvements," such as allowing speakers twenty minutes instead of five minutes as at the Twilight Club, and changing its scope somewhat. "All sorts and all conditions of men belong to the Sunset Club," said a writer in the Chicago *Herald*. "It is the only club of the kind in Chicago where all meet on a level. Its discussions have the effect of making the radicals less radical, and the conservatives more liberal in their views. It is the broadest organization in the world." The founder, Mr. Catlin, said of it that it was "the only club where men of the widest, opposite and most radical views meet on the same platform, and discuss questions in which they take a vital interest, without once displaying any bitterness or descending into personality."

Edmund Clarence Stedman, the poet and critic, wrote a letter in approval of the Club and its principles, and suggested the following as a suitable motto:

"At set of sun one lone star rules the skies,
Night spreads a feast the day's long toil has won;
Eat, drink, enough—no more; and speak, ye wise;
Speak, but enough—no more, at set of sun."

CHAPTER LI

TRACK ELEVATION—LIFE SAVING SERVICE, ETC.

GRADE CROSSINGS IN CHICAGO—FIRST ELEVATION OF TRACKS IN 1892—ILLINOIS CENTRAL FIRST TO ELEVATE TRACKS—LAKE SHORE AND ROCK ISLAND ELEVATE RIGHT OF WAY—CHICAGO & NORTH-WESTERN ENTER UPON EXTENSIVE SYSTEM OF ELEVATION—SUCCESSION OF ORDINANCES PASSED—FORT WAYNE ELEVATES TRACKS—THE CITY'S MOST DEADLY CROSSING—BENEFITS OF TRACK ELEVATION— PROGRESS MADE IN EIGHTEEN YEARS—SKETCH OF CARTER H. HARRISON, THE ELDER—THE INHERITANCE TAX LAW—ESTATES WHICH HAVE PAID AN INHERITANCE-TAX—SKETCH OF EUGENE FIELD—HIS WONDERFUL DIVERSITY OF GIFTS—HUMOR AND PATHOS OF HIS WRITINGS—SOME OF HIS POEMS—THE UNITED STATES LIFE SAVING SERVICE—THE STATIONS AND THEIR EQUIPMENT—SOME NOTABLE RESCUES—DISASTERS TO THE STEAMER "CALUMET."

TRACK ELEVATION

SPECIAL legislation was not necessary to enable the city of Chicago to require of the railroads having terminals in the city that they should elevate their tracks, and thereby eliminate grade crossings. The police power granted by the charter of the city, which gave the city government the right to take such measures as would guarantee to its citizens protection to life and limb and to promote the general welfare, was sufficient authority.

The elimination of railroad grade crossings was begun in the earlier history of Chicago by the erection of viaducts. This unsatisfactory and impracticable method was continued until 1892, when after several years of agitation and discussion by those who believed in track elevation as the remedy on the one hand, and by the railroads who claimed that the cost was prohibitive and ruinous to them on the other, a commission was appointed by Mayor Washburne, approved by the City Council February 15, 1892, known as the Terminal Commission.

The viaduct policy had become unpopular. "The height at which it was necessary to erect the viaducts above the original grade of the streets," says the Report of the Track Elevation Department, issued on January 1, 1909, "required the construction of long approaches, not only in the streets provided with viaducts, but in those that intersected the site of the approaches as well." Thus property contiguous to the right-of-way of railroads seemed likely in time to be "enmeshed with a network of approaches, which would not only offer long and heavy grades to street traffic but would considerably depreciate the value of the property affected."

FIRST WORK IN ELEVATION OF TRACKS

On May 22d, 1892, an ordinance was passed for the elevation of the roadbed and tracks of the Illinois Central Railroad from Forty-seventh street to a point near Seventy-first street. Owing to the opening of the World's Fair May 1, 1893, this work was pushed forward with so much energy that it was completed before the date of the opening of the Fair. The right-of-way of the Illinois Central thus raised was two hundred feet in width and admitted of eight tracks to be run alongside of each other. Thirteen grade crossings were eliminated by this improvement by subways, three miles of first main track elevated, and twenty-eight and seven-tenths miles of all tracks were comprised in the same elevation, at a cost of two millions of dollars.

Properly speaking this was the beginning of track elevation in Chicago which has since become of such vast proportions. The population of Chicago at that time was 1,200,000. The elevation of the Illinois Central tracks was a valuable object lesson, and the satisfactory results witnessed indicated the correct policy for the future. Public opinion demanded that all the railroads entering the city should elevate their tracks, and even before the World's Fair had opened, while the full results of the Illinois Central track elevation were not yet completely tested, a general ordinance was passed by the Common Council, on February 23, 1893, in conformity with the recommendations of the Terminal Commission, providing for the elevation of all the tracks of steam railroads within the limits of the city of Chicago.

This ordinance, however, was too comprehensive, as it involved such a vast outlay that it was seen to be impossible of accomplishment by the railroads. The administration therefore modified the requirements and had a survey made of those zones in which the travel at street and railway crossings was most dense, and decided to treat each of these zones separately, and, where necessary, to subdivide further each zone into suitable portions for convenience of working and to cause the least interruption to public traffic. Under this plan a gradual approach to complete track elevation within the city limits has been going on down to the present time.

"The annual growth of track elevation has been consistent," says the report already referred to. "The cumulative result is remarkable; the railroads have executed mile after mile of this kind of construction," without serious interruption to their traffic and with a minimum of delay to street travel. Great arteries of travel were often closed up for a time while heavy operations in elevating the roadbed were carried on, but on the whole it was quite surprising, considering the many complications involved, how quickly the work was accomplished in almost every case.

ELEVATION OF THE LAKE SHORE AND ROCK ISLAND TRACKS

Proceeding on the plan of requiring separate definite portions of roadbed to be elevated, the City Council, on July 9, 1894, under Mayor Hopkins' administration, passed an ordinance for the elevation of the roadbed and tracks of the Lake Shore and Michigan Southern Railway and of the Chicago, Rock Island & Pacific Railway, both of these lines making use of the same right-of-way, from

the crossing of the St. Charles Air Line at Sixteenth street, to Sixty-first street. At Sixty-first street, or Englewood, these two roads separate and diverge. Beyond the point of divergence the Lake Shore line completed a system of subways at Sixty-third and State streets of the most elaborate and complicated description, over which its tracks were carried. The Sixty-third street subway is 940 feet long between portals, and that at State street is 640 feet measured in the same way. After passing Englewood the distance covered by the elevation of the Lake Shore lines was four miles while the distance over which the Rock Island line carried its elevation was four and one-half miles. The estimated cost of all the elevation under this ordinance was about three millions of dollars. When the elevation provided for under this ordinance was completed thirty grade crossings had been eliminated between Sixteenth and Sixty-first streets besides others at points farther south, and in their places nearly as many subways, effecting a remarkable improvement in the convenience and safety of the public.

Reviewing the work at this stage of its progress in its broader aspect we may perceive the wisdom of modifying the over ambitious plan of attempting to carry through an enterprise of such magnitude in one supreme effort as at first proposed. "Less than seventeen months," says the Report, "had elapsed after the passage of the general ordinance, and in this short period the Council found that it had started on the wrong tack, took its bearings, and threw the helm to another course." In the four years following seven separate pieces of track elevation were provided for, causing a large increase in the labors of the administration as well as of the railroads. In the advancement of this work John O'Neill was the leading spirit throughout so that he has been justly called the "Father of Track Elevation." Previous to 1897, O'Neill had served in the Council where he devoted himself to the task of preparing the necessary ordinances, but in March of that year he resigned from the Council and was thereupon appointed "Superintendent of Track Elevation," and continued in this capacity until his resignation on October 31, 1907.

TRACK ELEVATION ON THE NORTH-WESTERN SYSTEM

On February 18, 1895, during Mayor Hopkins' administration, an ordinance was passed for the elevation of the roadbed and tracks of the Chicago & North-Western Railway, beginning at a point within the so-called Rockwell Street Yards of this company, east of Sacramento avenue, to the west line of Fortieth street. The right-of-way on this portion of the road is one hundred feet in width, giving sufficient space for six tracks parallel with each other. By means of this elevation seven grade crossings were eliminated, in place of which the same number of subways were constructed and two streets discontinued. The work thus undertaken and completed was two and a half miles long, and was done at a cost of $400,000.

During Mayor Swift's administration, that is on March 30, 1895, an ordinance was passed for the elevation of the roadbed and tracks of the Chicago & North-Western Railway, commencing at Clybourn Junction, and extending four and one-half miles northwest to the "Mayfair Yards." By means of this improvement there were eliminated twenty-seven grade crossings, and the whole work was done at a cost of one million dollars. Under the same ordinance another piece of the

North-Western road was elevated on the Milwaukee Division, commencing at Wrightwood avenue and continued northward to Bryn Mawr avenue. The length of this piece of track elevation is four and one-half miles and the cost approximated $900,000.

FORT WAYNE TRACKS ELEVATED

On July 27, 1896, during Mayor Swift's administration, an ordinance was passed for the elevation of the roadbed and tracks of the Pittsburg, Fort Wayne & Chicago Railway, commencing at a point about sixty feet north of the north line of Fifty-third street, and continuing in a southerly direction to near the intersection of Sixty-seventh street and South Park avenue. The right-of-way is sixty-six feet in width upon which are laid four lines of railroad tracks. Fifteen grade crossings were by this means eliminated and in their places were the same number of subways, and two miles of first main tracks elevated together with parallel tracks, yards, etc., some twenty-one miles of trackage in all, at an estimated approximate cost of $750,000.

An amendatory ordinance was passed on January 18, 1897, during Mayor Swift's administration, for the elevation of the roadbed and tracks of the same road from the east line of State street, following a southerly direction three hundred feet east of the east line of St. Lawrence avenue. This right-of-way is one hundred feet in width, giving sufficient space for a five-track road. Two grade crossings were eliminated by subway, one mile of first main track elevated, with four and eight-tenths miles of all tracks included in the elevation, at an estimated approximate cost of $250,000.

OTHER ELEVATIONS

A very important piece of work was provided for on January 18, 1897, when an amendatory ordinance was passed for the elevation of the roadbed and tracks of the Lake Shore & Michigan Southern Railway, commencing at a point north of Sixty-first street to a point three hundred feet east of the east line of St. Lawrence avenue. This ordinance increased the plane of elevation over the original ordinance of 1894, one and eight-tenths of a foot at Sixty-first street and three and a half feet at State street. This amendatory ordinance for the elevation of the tracks of the Lake Shore road required that their vast yards should be elevated to the same plane as that provided for the main tracks.

The right-of-way between Sixty-first street and St. Lawrence avenue is between five hundred and six hundred feet in width. Two grade crossings were eliminated on the completion of this work and subways substituted for them, two miles of first main tracks and twenty and six-tenths miles of all tracks elevated at an estimated cost of one million dollars.

THE CITY'S MOST DEADLY CROSSING

An ordinance was pased on May 17, 1897, for the elvation of the plane of the roadbed and tracks of the St. Charles Air Line Railroad, which extends from its connection with the Illinois Central Railroad north of and nearly coincident with Sixteenth street westerly and across the South Branch of the Chicago River. The proprietors of the road are the Illinois Central, the Chicago and North-Western and the Chicago, Burlington & Quincy Railroad Companies. This ordi-

nance required a change in the plane and elevation of the following companies: the Chicago, Madison & Northern Railroad, the Atchison, Topeka & Santa Fe Railway, the Chicago & Western Indiana Railroad, the Lake Shore & Michigan Southern Railway, the Chicago, Rock Island & Pacific Railway, and the Chicago & Alton Railway. This ordinance affected more railroad companies than any previous one, because of the ownership of the St. Charles Air Line by three other railroad companies and because of the great number of railroads whose tracks were crossed in so short a distance. The right-of-way of the St. Charles Air Line is fifty-two feet in width with a four track road. Seven grade crossings were eliminated and subways substituted therefor, and one and six-tenths miles of first main tracks which included four and six-tenths miles of all tracks elevated.

The principal grade crossing among those eliminated in this project was the crossing at South Clark and Sixteenth streets. This was considered the most dangerous crossing in the city. It was indeed a death trap, but for a long time after the policy of track elevation had become a settled one nothing was done to abolish it, for the reason that it defied the ingenuity and skill of the engineers to design a crossing that was practicable, because of the numerous tracks in use at this place. Happily a design was at length prepared, and in its completed form is worthy of study and admiration for the efficient manner with which it fulfills the purpose of its ingenious designers.

BENEFITS OF TRACK ELEVATION

The benefits accruing from track elevation are so many that it is difficult to summarize them in a brief space. The most important benefit to the community is of course the saving of life and limb, which, indeed, was the principal reason for the work. The results accomplished in this respect are given in a table printed in the Track Elevation Report which shows that in the year 1899, there were one hundred and thirteen fatal accidents at grade crossings, though even then the work of raising the tracks had made considerable progress. For the years from 1900 to 1908 the number of such accidents showed a somewhat irregular decrease, until, at the latter date, there were only twenty fatalities at grade crossings during the year, although the city's population had largely increased. This is a grade crossing record only, the accidents which occurred on the rights of way between streets not being included.

Material results are, however, no less significant of the immense benefits which have accrued from track elevation. An important change for the better is the avoidance of street car blockades at railroad crossings, which was formerly a most serious hindrance to passengers. The author of the report referred to, contrasting the present conditions with those which would have obtained if the tracks had not been elevated, says: "Consider the time that would be lost annually in case no tracks had been elevated. During the year 1908 there were recorded 643,386,000 passengers carried on the surface lines alone. Most of the railroads intersect street car tracks every half mile where the city is built up, and where surface traffic is heaviest." It is fair to assume, he says, that 150,000,000 of this number would each have been delayed at least one minute by encountering a railroad crossing, and that 90,000,000 pedestrians would have suffered a like delay in the same manner. Thus if track elevation had not been accomplished the time

consumed in these delays would, in the course of the year 1908 according to these assumptions, have reached the amazing total of seventy-six years.

By reason of track elevation valuable time is saved by the Fire Department in reaching the scenes of fires which is of course of the greatest importance in preventing the spread of conflagrations. The train service over the elevated roadbeds is greatly improved in consequence of the better time it is possible to make with a clear track. Less temptation exists for unauthorized persons to board moving trains, and the cessation of this practice has diminished the number of accidents from this cause. The maintenance of flagmen, gates, watchmen, signal towers, and the ringing of bells on engines, are rendered unnecessary, saving a large expense to the railroad companies and lessening the general din and uproar of the city. It would not be difficult indeed to specify a much larger number of other material benefits resulting from the elevation of the railroad rights of way within the city limits. For example, the underground pipes and sewers crossing a railroad were formerly difficult of access, but are now comparatively easy to reach for purposes of repair or alteration; greater accessibility of one neighborhood to another where lines of railway intervene, so that churches, markets, schools and workshops are easily and safely reached.

One of the engineers in the Track elevation department gives the following succinct statement of the beginning, and the benefits accruing from track elevation to the city of Chicago. "Track Elevation," he says, "was really started in Chicago by the Illinois Central Railroad, to take care of the heavy World's Fair traffic crossing the streets leading into Jackson Park. In that case it was a necessity in order to allow the running of trains without great danger to foot passengers, and certainty of considerable delays to them.

"At the time of the beginning of track elevation in Chicago, the annual death rate due to grade crossing accidents averaged between three hundred and four hundred persons every year. This could not go on, for with the increase of street and railroad traffic which has occurred since that time, the fatalities of this kind would have been enormous in number.

"The delays to traffic due to busy grade crossings are another reason for track elevation, probably as effectual as the resulting dangers. Comparatively few people are killed or injured at grade crossings, but almost everybody is affected by annoying and troublesome delays at crossings, while long freight trains pass or switch across the street. The railroads could not carry on their business, particularly freight business, without blocking crossings for longer periods than the public would stand, and they knew that such conditions could not long continue.

"In fact, conditions were rapidly becoming intolerable on both sides and both the public and the railroads were anxious to find a remedy. The railroads during the past twenty years have been following a policy of rebuilding their lines in permanent form, and the track elevation and accompanying improvements in cities like Chicago are only a part of the rebuilding in progress all along the line."

During the eighteen years within which the work of track elevation has been steadily advancing a great diversity of designs and methods have been employed. In the earlier years the use of cut stone and rubble masonry was very general, but latterly concrete is almost exclusively employed. In the outlying districts

the elevation often consists of sloping embankments except at street crossings, where of course abutments and retaining walls are built. The generally level situation of the city's site makes it an easy task for the engineers to maintain an even height for all the tracks.

In the earlier ordinances the requirements for the height of the subways in the clear was placed at twelve feet and six inches. The electric cars now in use require a greater height than this, and the problem is a serious one at the present time. Those railroads which had completed their track elevation under their contract ordinances are subject to no further demands. On the South Side fortunately the City Railway Company had foreseen the possibility of larger cars coming into use and had demanded thirteen feet and six inches from the first as the necessary height of the subway ceilings, and it is now the settled policy of the Track Elevation Department to require this height in the clear for all subways.

It does not seem necessary to describe further the numerous different projects of track elevation which have been inaugurated and completed in the sixteen years that track elevation has become the settled policy of the city authorities. Enough have been described to give the reader a fair comprehension of the successive steps and phases of the track elevation movement, what the scope and purposes of the work are, and what has been accomplished. In the Track Elevation Report for December 31, 1908, there are nine hundred and forty pages filled with the text of track elevation ordinances covering a great number of separate projects. It is sufficient for the purposes of this history to give a brief summary of the condition of affairs on the date when this voluminous report was issued.

Down to the date of this report the total mileage of railroad tracks elevated, subways constructed, and the cost of all work in connection therewith, is as follows:

	Work Completed or under Construction	Work under Ordinances but not begun	Totals
Miles of Roadbed	113.44	35.28	148.72
Miles of all tracks	748.72	166.29	915.01
Subways	559	161	720
Cost	$53,662,000	$19,000,000	$72,662,000

MAYOR CARTER H. HARRISON

The tragic death of the Mayor of the City of Chicago, Hon. Carter H. Harrison, during the closing days of the World's Columbian Exposition, on the 28th of October, 1893, is referred to elsewhere in this history. On the evening of that day Mr. Harrison was shot and killed by an assassin, one Patrick Eugene Prendergast, in the doorway of his own house, number 231 Ashland avenue. Like other assassins, whose infamous deeds have blackened the pages of our country's history, the miscreant Prendergast claimed to have a grievance against the Mayor because he had not been able to obtain employment in the city departments. On this Saturday evening he came to the entrance of the Mayor's residence. The Mayor himself came to the door to meet him, when with an angry declaration that he had come to get satisfaction, the wretch shot the Mayor three times, one of the shots penetrating his heart. Mr. Harrison lived only seventeen minutes after he was thus murderously attacked.

Immediately after the murder of the Mayor the assassin was taken into custody, and in due time was put upon his trial. He was found guilty and condemned to suffer the extreme penalty. His counsel argued that he was insane either at the time the crime was committed or afterwards, and should not suffer the death penalty. The execution was postponed several times to allow the medical experts to make a thorough examination. It was finally determined that although weak-minded and viciously warped in his ideas, he was responsible for his acts, and the sentence of the law was finally carried out, but not until after a long delay. "The hanging of Prendergast," said the editor of a Chicago paper, "was not the wreaking of vengeance upon a demented and irresponsible head. It was the freeing of society of a man whose further existence was a menace to life, and whose example, if not treated with stern justice, would have been a standing invitation to other murderous fools to take other valued lives. The verdict which has been carried out is a just one, because any other verdict would have been a gross crime against the safety of the community and against all law, human and divine. 'Just, though tardy,' will be the verdict of mankind on this closing of a sad chapter in Chicago history."

SKETCH OF MAYOR HARRISON

Carter Henry Harrison was sixty-eight years old at the time of his tragic death. He was a graduate of Yale College, and had lived in Chicago since 1855. He was elected to Congress in 1876, and in 1879, was elected Mayor of the City of Chicago on the Democratic ticket, the term of office being two years. He was re-elected in 1881, again in 1883, and again in 1885. He was not a candidate at the two following elections, but in 1891, he ran again and was defeated. However, in 1893, he was once more a candidate for the office of mayor and was elected, entering upon his duties on April 4th of that year, nearly a month before the opening of the World's Columbian Exposition. Mr. Harrison was a politician of the old school and believed in giving offices as the reward of party services.

After his last election he welcomed and entertained many of the distinguished guests and visitors at the Exposition, and frequently addressed meetings in its interest, for which he was well equipped. A writer in "Harpers' Weekly" of New York said of him: "He had read widely and deeply, he had traveled far and often, he knew men and manners very well, and he was kindly, witty, engaging, wise, and even brilliant. More than all, he admired and loved Chicago, and was able to speak for it with a voice that echoed the subtlest as well as the deepest notes of its enthusiastic pride in its own achievements. . . . He was the idol of the masses in his city, and their instant anger and subsequent grief were sufficiently deep to astonish and impress the nation."

A bronze statue of Carter H. Harrison now stands in Union Park, and on the pedestal is carved an inscription containing a quotation from the speech made by him as mayor, at the World's Columbian Exposition, on October 28, 1893, the very day, in the evening of which he met an untimely death at the hands of an assassin. The words quoted are as follows: "Genius is but audacity, and the audacity of Chicago has chosen a star. It has looked upward to it, and knows nothing that it fears to attempt, and thus far has found nothing that it cannot accomplish."

HOUSE OF CARTER H. HARRISON ON ASHLAND AVENUE

THE INHERITANCE TAX LAW OF ILLINOIS

An inheritance tax law was passed by the State Legislature which became effective on July 1, 1895. It was the first law of the kind in this state. This law was amended from time to time, until on June 14, 1909, a practically new law was passed, the schedules of taxation being as follows: The tax on property willed to direct heirs is subject to one per cent on the amount received by each person in excess of twenty thousand dollars and not exceeding one hundred thousand dollars; with the provision that any such sum less than twenty thousand dollars is exempt from the tax, and that the tax applies only to whatever is in excess of the said twenty thousand dollars. And further, that any amount willed to any individual of the direct heirs, if in excess of one hundred thousand dollars shall pay two per cent on the amount so willed, applying only to whatever is in excess of twenty thousand dollars.

If the property transferred by will goes to collateral heirs,—that is, uncles, aunts, nieces, nephews, or any lineal descendants of the same—the tax is greater. The rate in such cases is two per cent of the value of the property received by each person, in excess of two thousand dollars, and not exceeding twenty thousand dollars, with the provision that any sum less than five hundred dollars is exempt from the tax, and that the tax applies only to whatever is in excess of the said five hundred dollars. And further, that any amount willed to any individual of the collateral heirs in excess of twenty thousand dollars shall pay four per cent, applying only to whatever is in excess of five hundred dollars.

In all other cases the inheritance tax rate, says the law, shall be as follows: "On each and every one hundred dollars of the clear market value of all property and at the same rate for any less amount; on all transfers of ten thousand dollars and less, three dollars; on all transfers over ten thousand dollars and not exceeding twenty thousand dollars, four dollars; on all transfers over twenty thousand dollars and not exceeding fifty thousand dollars, five dollars; on all transfers over fifty thousand dollars and not exceeding one hundred thousand dollars, six dollars; and on all transfers over one hundred thousand dollars, ten dollars: *Provided*, that any gift, legacy, inheritance, transfer, appointment or interest which may be valued at a less sum than five hundred dollars shall not be subject to any duty or tax."

EXEMPTIONS FROM THE INHERITANCE TAX

Gifts by bequest to certain institutions not formed for profit enjoy exemption from the operation of the inheritance tax. The law on this point is as follows:

"When any beneficial interest of any property or income therefrom shall pass to or for the use of any hospital, religious, educational, bible, missionary, tract, scientific, benevolent or charitable purpose, or to any trustee, bishop or minister of any church or religious denomination, held and used exclusively for the religious, educational or charitable uses and purposes of such church or religious denomination, institution or corporation, by grant, gift, bequest or otherwise, the same shall not be subject to any such duty or tax, but this provision shall not apply to any corporation which has the right to make dividends or distribute profits or assets among its members."

This will be more clearly understood by a perusal of the following discussion

of the subject which has been furnished on request by an eminent lawyer, who has had an extensive practice in the courts in cases involving the settlement of many large estates, such estates having been subject to a charge for inheritance tax. The statement made by him may be relied upon as accurate and contains information of great interest and value. The statement was prepared especially for this work.

INHERITANCE TAX LAWS AND LEGISLATION

In 1895 the Legislature of the State of Illinois passed an Inheritance Tax Law imposing a tax upon the right of heirs and beneficiaries to take deceased persons' property.

Generally stated, lineal descendants of decedents, such as children and grandchildren and husbands and wives and brothers and sisters, were taxed one (1) per cent on all property received over and above $20,000. Uncles and aunts, nieces and nephews and their descendants were taxed two (2) per cent over and above $2,000 on the property received by each. Strangers in blood were taxed a graduated rate from three to six per cent. This law was an evolution of the Inheritance Tax Law of 1828 of Pennsylvania. Pennsylvania was the first State in the Union to adopt a tax upon inheritances. In 1885 Pennsylvania re-enacted and revised its Inheritance Tax Laws, and in the same year New York adopted an Inheritance Tax Law, taking it largely from the laws of Pennsylvania.

The Illinois Law of 1895 was copied largely from the law of New York of 1885 as amended in 1887. The Illinois Act although providing a means of imposing taxes, failed to provide any funds, offices or machinery for the prosecution of estates. In 1901 our Legislature amended the 1895 act and provided for the Attorney General appointing an Inheritance Tax Attorney. No office, supplies or machinery was provided for said prosecuting officer, however, and, in 1905, when the present Attorney General, W. H. Stead took office, he created an office in Chicago and provided out of his general fund for the work of prosecution. Up to 1905 the Inheritance Tax assessments and collections averaged from about $150,000 to $225,000 per year. After the provision of machinery for the Inheritance Tax Attorney by the said Attorney General in 1905, the Inheritance Tax collections increased to an average of $350,000 per year until 1908, when the Legislature provided an appropriation for the prosecution of estates, said Legislature realizing the enormous commercial and financial interests in one of the greatest cities of the world, from which have and are springing up great fortunes. From 1908 to 1909 the average income of the State from Inheritance Taxes was about $550,000 per year.

In 1909, the Legislature realizing the many defects in the law of 1895 as amended in 1901, did, on the recommendation of the Attorney General, re-enact the law. And said Legislature added a section for the apprehension of estates wherein no administration was had, in the form of a section known as Section Nine which provides substantially as follows: That no Bank, Trust Company, Deposit Company, Corporation, Institution or individual can transfer out of its possession and control securities, deposits and assets standing in the individual or joint name of, or owned by a decedent, resident or non-resident of this State, and providing for notice to the Attorney General and State Treasurer, prior to the transfer of any such securities, deposits and assets. Said Section also pro-

vided that in case of an infraction of this Section a penalty of $1,000 attaches to said corporation, institution, etc.

This new Act was instrumental in the collection of $1,400,000 from the entire state in the fiscal year beginning August 31, 1909 and ending August 31, 1910, over $1,000,000 of which was taken from Cook County.

A great many large estates have been prosecuted for the purpose of determining the Inheritance Tax due thereon. The foremost in size and the most famous, as involving complex and difficult legal propositions, is the estate of Marshall Field which was determined to have a value of about $85,000,000. This estate was the largest ever appraised in the United States with the exception of the estate of the late Edward H. Harriman, which estate exceeded, according to reports, the value of $100,000,000; said Field estate being larger than any estate of the Vanderbilts or the Goulds.

A large tax was assessed in the Field estate and it is anticipated upwards of $1,000,000 will be recovered to the State from this property. Other estates which have been subjected to the Inheritance Tax Laws are:

Otto Young	$11,000,000
Nelson Morris	18,000,000
Gustavus F. Swift	12,000,000
George M. Pullman	7,000,000
Chas. Netcher	4,000,000
Albert Keep	5,000,000
Leander J. McCormick	4,000,000
Albert M. Billings	3,000,000
Wm. H. Mitchell	6,000,000
Otho S. A. Sprague	3,500,000
Thos. Murdock	3,500,000
Benj. F. Ferguson	3,000,000
James C. King	3,500,000
Philip D. Armour	20,000,000
Potter Palmer	10,000,000
John B. Drake	4,000,000
Silas B. Cobb	6,000,000
John V. Farwell	2,000,000

EUGENE FIELD

Eugene Field began his residence in Chicago in 1883, and became a special writer for the Chicago Daily *News*, his particular department for several years being that known as "Sharps and Flats," which was filled with the pungent and witty productions of his pen. He had formerly been engaged in newspaper work at St. Louis, Kansas City and Denver. Fields' writings made him famous throughout the country, a great part of them consisting of short poems written often in a satirical or humorous vein, relating to the affairs of the day, and numerous translations of the Odes of Horace rendered in his own inimitable manner. As a poet, however, he was perhaps best known through his poems of childhood and home, which strongly appealed to the popular heart. His poems and sketches have frequently been published in book form, and the earlier editions are much sought

for by collectors. Eugene Field died in 1895, at the untimely age of forty-five years, mourned by a large circle of friends and admirers, having made a deep impress upon the literary life of the community.

In 1910, a new edition of his poems was issued, and a reviewer in the Chicago Evening *Post*, referring to his sympathy with child life, said that "Eugene Field has already been canonized in the nursery," and further says that in his verse "one does come unmistakably upon gleams and flashes of a certain rare and intimate spirit,—the spirit which manifested itself so wonderfully in some of the Roman lyrists, which we find abundantly in Herrick, in Burns, in Landor; a spirit so fine as to require to be cherished wherever it appears, and valued at its height. The poets who have this spirit, in making use of autobiographical material, so to speak, do not, like others, transform it into something rich and strange, but render it with a naive and charming literalness. They take the world into their confidence, not about a rapture or an agony, but about some delightful trifle.

"That is why one feels the poetry of Field, his newspaper verse is more certainly enduring metal than that over which some of his contemporaries sweat blood. There is something permanently fascinating in the way he tells the world about his friendships, calling his friends by name and describing the home where he loves to loaf and invite his soul. He relates with infinite gusto his adventures as a book and print collector—recording that he saw some splendid bargains when he was broke in London in the fall of '89, or that in New Orleans one day he 'blew in' twenty dollars by nine o'clock, a. m. And his books: what a delightful flavor there is in his talk about bindings and first editions! It is the authentic reality in these things that makes them something more than 'fugitive verse.'"

In writing of the translations from classical authors, so frequently made by Field, the reviewer says that "for all their admixture of modernity, these vivacious paraphrases are more successful than any academic translation in giving an impression of the spirit of the Roman poet." As an illustration the reviewer quotes the following "Invitation to Maecenas:"

"Dear, noble friend! a virgin cask
Of wine solicits your attention:
And roses fair, to deck your hair,
And things too numerous to mention.
So tear yourself awhile away
From urban turmoil, pride and splendor.
And deign to share what humble fare
And sumptuous fellowship I tender.
The sweet content retirement brings
Smooths out the ruffled front of kings."

"But he who does not find himself in sympathy with the artifice of these poems is only the more sure to enjoy the simple and open-hearted lays and lyrics written in such a mood as this:

'Little All-Aloney's feet
Pitter-patter in the hall,
And his mother runs to meet
And to kiss her toddling sweet
Ere perchance he fall.'

"Verses superficially like these are published by the thousands every year. They are almost a public nuisance in their affectation, their false sentiment, their utter banality. But one is surely not mistaken in saying that Field's child poems are real poetry, distinguishable in a moment from all such trash by their accent of perfect sincerity. They represent the abandon of a gentle, childlike, child-loving heart, and they have an honorable place in our American literature."

This appreciation from a young writer, who was yet in his infancy when Field was most active in his work, is a remarkable tribute to his genius, and corroborative of the impressions of contemporary readers who were privileged to see these writings from day to day through many years. Field was a book lover of the genuine sort, a follower and disciple of the gentle Dibdin, and the circle of kindred spirits in the community were rallied and made known to each other through him and the friends who always surrounded him.

In the old book store of McClurg & Co., then located at the corner of Wabash avenue and Madison street, a section of the main floor was devoted to out of print books, in rare editions and fine bindings, as indeed there is in their present quarters. This place was a favorite resort, presided over by the wise and dignified George M. Millard, and was frequently referred to by Field as the "Saints and Sinners Corner." For many years there were often gathered here the congenial spirits of the book loving fraternity, and the inspirations flowing from such associations are felt even unto this day.

Field made extensive use of that form of humorous writing, since become so popular among the "jokesmiths," where names are purposely confused with similar ones having entirely different associations, thus producing most ludicrous effects. For example, in commenting upon Matthew Arnold, who was visiting the West in 1883, he says: "Since it appears that Matthew Arnold is neither the man who betrayed his country, nor the man who wrote 'The Light of Asia,' it is surmised that he can't amount to very much; unless, perchance, he should happen to be the author of Arnold's writing ink." In one of his paragraphs he makes "a suggestion for a British statesman," as follows: "The Right Honorable John Bright has been making a public address in Birmingham on our revenue system. It seems to us that he could better employ his time in suggesting a specific for the popular kidney complaint of which he was the author."

One little poem is here quoted which is a fine example of that rare and subtle quality in Field's child poems which has earned for him the title of the "Children's Friend."

LITTLE BOY BLUE

"The little toy dog is covered with dust,
But steady and stanch he stands,
And the little toy soldier is red with rust,
And the musket molds in his hands.

Time was when the little toy dog was new
And the soldier was passing fair,
And that was the time when our Little Boy Blue
Kissed them and put them there.

'Now don't you go till I come,' he said,
'And don't you make any noise!'
So, toddling off to his trundle bed
He dreamt of the pretty toys.
And as he was dreaming an angel song
Awakened our Little Boy Blue—
Oh, the years are many—the years are long—
But the little toy friends are true!

Aye, faithful to Little Boy Blue they stand,
Each in the same old place;
Awaiting the touch of a little hand
And the smile of a little face.
And they wonder—as waiting these long years through,
In the dust of that little chair,
What has become of our Little Boy Blue,
Since he kissed them and put them there!"

The author of a "History of American Verse," Mr. James L. Onderdonk, published in 1901, thus speaks of Eugene Field, after having reviewed the standing of some other poets, as follows: "These writers may be regarded as the founders of a rapidly increasing class whose works are contributing so much to a strong and healthful Western literature. It would be improper to take leave of these frontier singers without referring to one who, if so inclined, might have made the Rocky Mountains as familiar in song as the Sierras have become in the works of his contemporaries. Eugene Field, at one time regarded as the Bret Harte of Colorado, was born in Missouri, and had been a resident of New England as well as of the far West. But his literary development properly belongs to the last named section, which he abandoned to assume a position on a Chicago newspaper. Colorado and the Rocky Mountain region still claim him as their own, and he never entirely renounced his first allegiance. In his humorous descriptions of life in the mining camps in the early sixties, we recognize Field as the cleverest of Bret Harte's disciples, but in such lyrics as 'The Wanderer,' 'Little Boy Blue,' 'Telka,' and 'The Bibliomaniac's Prayer,' we gladly hail Field as his own master."

Like Thackeray, Eugene Field could draw very cleverly, and often furnished sketches to accompany his comical pieces. While engaged with the Daily *News*, Field's weekly salary was, by his own request, paid regularly to Mrs. Field, whom for excellent reasons he had appointed the financial manager of the household. Rarely, however, did it reach her intact, owing to Field's infraction of his own rule in the matter. His requests for money at the cashier's office, then in charge of Collins Shackelford, now the exchange editor of the *Record-Herald*, were often written on slips of paper in prose or verse decorated with sketches or fancifully written in ink of different colors. These were preserved by Shackelford and have since been distributed among many of Field's old friends and admirers.

NEWSPAPERS AS HISTORICAL MATERIAL

Newspapers satisfy many of the canons of historical evidence. "Their object," says Rhodes, "is the relation of daily events; and if their relation is colored by honest or dishonest partisanship, this is easily discernible by the critic from the internal evidence and from an easily acquired knowledge of a few external facts. . . . Moreover the newspaper itself, its news and editorial columns, its advertisements, is a graphic picture of society. . . . Take the newspaper for what it is, a hasty gatherer of facts, a hurried commentator on the same, and it may well constitute a part of historical evidence."

The examination of manuscript material is probably the most laborious task which falls to the lot of the historical writer. But next to that the physical and mental labor of turning over and reading bound volumes of newspapers is the most severe, says Rhodes. Newspapers as historical material, like all other evidence "must be used with care and skepticism, as one good authority is undoubtedly better than a dozen poor ones. . . . For the history of the last half of the nineteenth century just such material—the material of the fourth estate—must be used. Neglect of it would be like neglect of the third estate in the history of France for the eighteenth century."

THE LIFE SAVING SERVICE OF CHICAGO

It is stated in Andreas' "History of Chicago" that "The high winds and dense fogs of spring and fall, for many years prior to 1856, had been productive of much damage to shipping, and wrecks, accompanied by loss of life, and were of frequent occurrence. In the spring of 1856, the Government sent a life boat to Chicago, and it was placed in charge of the harbor engineer. The first boat was kept under Rush street bridge, and, in case of service becoming necessary, volunteers were depended upon to man it. This boat was made to answer a variety of purposes, and was yet in fair condition, several years later, when a life saving station was established, with Captain John Taylor in charge."

The Life Saving Service dates back to the middle of the last century. The first steps towards an organized effort for assisting shipwrecked persons was the establishment of a humane society in Massachusetts, and its huts of refuge and volunteer life-boatmen rendered incalculable service in rescuing lives from vessels in distress. At first this society was supported by voluntary contributions, but in 1847, Congress appropriated five thousand dollars to provide the keepers of lighthouses "with means of rendering assistance to shipwrecked mariners." In the following year the first regular organization of the Life Saving Service was authorized by Congress, and fifty-four stations were established on the Atlantic coast. Each year thereafter the service was extended, and the sums appropriated were increased, until at the date of the last annual report (June 30, 1910) there were shown to be two hundred and eighty-one stations, and the amount required for their maintenance was upwards of two and one-quarter millions of dollars.

The history of the Life Saving Service at Chicago and Evanston, recently prepared by the Superintendent of that department, is given as follows:

In March, 1873, Congress appropriated $100,000 for new life-saving stations, and called for a report of points for others to be established upon the sea and

lake coasts, with detailed estimates of cost. To make the report called for by the law, a commission was formed immediately after the passage of the act, consisting of S. I. Kimball, the present General Superintendent of the Life Saving Service, and Captains John Faunce and J. H. Merryman, of the Revenue Cutter Service. The commission visited Chicago and made a personal inspection and study of the nature, characteristics and needs of the coast of Lake Michigan in that vicinity, and consulted marine underwriters, shipowners, captains of vessels and other sources of relevant information. When the commission visited Chicago it found one of the life-boats which had been authorized by Congress nearly twenty years previously to be placed at various places on the Atlantic and Lake coasts, under the Rush street bridge, which was its only shelter.

By the act of June 20, 1874, the Secretary of the Treasury was authorized to establish life-saving stations, lifeboat stations and houses of refuge for the better preservation of life and property from shipwreck at certain points on the sea and lake coasts. In pursuance of the recommendation of the commission referred to, that act authorized a lifeboat station at Chicago, and a complete life-saving station at or near Gross Point (Evanston). The lifeboat house at Chicago was located on the Illinois Central pier No. 1, and was placed in the charge of a keeper who employed volunteers upon occasions of shipwreck. A crew of surfmen is now regularly employed at the station.

The Gross Point station (Evanston) was completed in 1877, and a keeper and crew were employed. This station stands on property of the Northwestern University at Evanston, and is now designated the Evanston Station.

By the act of June 19, 1886, a life-saving station was authorized to be established at South Chicago. The station was erected on the Lighthouse reservation at South Chicago and was placed in commission in April, 1890.

In August, 1892, the Jackson Park station was authorized to be erected to form a Government exhibit during the World's Columbian Exposition at Chicago, and to take the place of the Chicago station on the Illinois Central pier after the Exposition should close. It was found, however, that the needs of commerce required the maintenance of the Chicago station, and it was continued under the name of the "Old Chicago station," and the Exposition station was also continued at Jackson Park.

The Old Chicago station was found to be inadequate to the needs of the service, and a new station was erected in 1903 on the breakwater at the mouth of the Chicago river. A new location for the Jackson Park station was found to be necessary, and in 1908 a new station was erected.

In addition to the usual equipment of boats and apparatus, the South Chicago station has been furnished with a thirty-four foot power lifeboat, and an open power surfboat; the Jackson Park station with a thirty-four foot power lifeboat also; the Old Chicago station with a thirty-six foot self-righting and self-bailing power lifeboat, and an open power surfboat; and the Evanston station with a self-bailing power surfboat.

In filling vacancies at the Evanston station preference is given to students of the Northwestern University, or to eligibles from any station in the district desiring or intending to become such students, this fact being indicated in their applications, and evidence being presented that they will be admitted as students in said University.

In addition to the regular stations and crews mentioned above there is a volunteer crew and station in Rogers Park, at the foot of Kenilworth avenue. The government has erected a building for their purposes and it is provided with a full complement of apparatus. The members of the crew are mostly young business men who hold themselves in readiness to respond to calls upon them at any time they are needed. The station is in charge of the keeper of the Evanston station.

The activities of the life savers, who are often seen on their regular beach patrols or passing in their boats on the lake, have inspired the boys at Edgewater to form a crew of their own modeled upon that of a regular crew of the life-saving station. These boys are most of them students in the city high schools, and in this instance have purchased their own boat and practice the regular drills of the service. These amateurs are regarded with great favor by the regular life savers, as it is seen that they may on some occasions reach a scene of danger more quickly than could a boat from a station situated at some distance. They will be spurred to greater endeavor and can incur greater risks realizing that the regular crew will not be far behind them in any work of rescue on hand.

The training and discipline thus acquired by these youthful amateurs engaged in so useful a work, although this particular crew has not been in existence long enough to furnish any tests of its efficiency, cannot fail to be of the highest value to them in their future lives, and they certainly do honor to themselves in rendering this service to the community. The similarity of the objects of this praiseworthy movement to that of the Boy Scouts, whose activities have attracted widespread public attention and approval, both movements having in view the main purpose of rendering assistance in emergencies, is apparent; and invites the applause of all public-spirited people. The model of a well-drilled and efficient branch of the government service, as an incentive to youthful activity in the direction of useful and helpful service, is thus plainly seen; for without an example thus furnished by the regular crews of the Life-Saving service it would be difficult to form and carry out so promising an enterprise.

CONDITIONS IN THE LIFE SAVING SERVICE

The entire shore line of the Great Lakes is dotted with stations of the United States Life Saving Service. "The cluster of inland seas, known as the Great Lakes," said the General Superintendent of the service, Sumner I. Kimball, in an address delivered in 1889, before the International Marine Conference, "contains an area of about eighty thousand square miles, and has a coast line within the limits of the United States of nearly twenty-five hundred miles. These seas are open to navigation about eight months in the year; at other times being closed by ice. . . . There are few natural harbors, but a large number of artificial ones. These are formed at the mouths of rivers by extending piers from their banks out into the lake for a considerable distance and dredging the bottom between.

"The lakes are generally tranquil, but at certain seasons are visited by violent gales which throw their fresh waters into furious convulsion with a suddenness unknown upon the ocean. Vessels unable to hold their own against the severity of these storms, being land-locked and with scant sea room, are likely to be left with only the choice between stranding wherever they may be driven, and seeking

refuge in the harbor that seems most accesible. The latter course is naturally the one taken. To effect an entrance within the narrow space between the piers at such times with sailing vessels, and even with steamers, is frequently a task of extreme difficulty, and the luckless craft are liable to strand upon the bar on one or the other side of the piers and meet their destruction." During the prevalence of great storms many disasters occur in a single day at these harbors.

LIFE SAVING STATIONS AND EQUIPMENT

In the majority of the stations provided by the Life Saving Service, which is under the control of the Treasury Department at Washington, the first floors are divided into four rooms, the largest for the accommodation of the life boats and apparatus; and on the second are the quarters for the men of the crew. Upon the roofs of each of these stations is a look-out tower and a tall flag staff used for signalling. The buildings are usually located near the water's edge. An inclined track from the station to the water is provided, down which the boats are quickly launched. Each of the stations has telephone connection with others in the vicinity.

There are thirty-one stations on Lake Michigan which is known as the Twelfth District. From the report of General Superintendent Kimball, for the year ending June 30th, 1909, it is learned that during the year mentioned there were ninety disasters to vessels on Lake Michigan, only seven of which proved to be a total loss. None of these disasters resulted in loss of life. This record, however, only covers "documented vessels;" the record of disasters to "undocumented vessels," that is small craft of all descriptions, showing a number of fatalities. Further on in this chapter will be found a table of disasters which have occurred on the five great lakes for a period of ten years, together with the number of lives lost.

PURPOSES AND REQUIREMENTS

While the primary purpose of the United States Life Saving Service is to save and succor the shipwrecked, a considerable number of persons not connected with vessels are annually rescued from various situations of danger. Among the services performed within the year given may be mentioned the rescues of persons from drowning while bathing; medical and surgical aid given to persons suffering from sudden attacks of sickness, from burns at fires, bruises and broken limbs; rescues of unprotected persons from attacks of ruffians; shelter given to persons who have lost their way on the beaches; and aid rendered in giving fire alarms and assisting in extinguishing fires; thus fulfilling in part the functions of the "first aid" ambulance corps, and of the fire and police departments of the neighborhood.

Besides this the life savers assist frequently in the recovery and restoration of a great variety of valuable articles.—fish nets, lumber, even automobiles and parachutes lost in the adjoining waters; as well as in the rescue of domestic animals. The keepers of life saving stations "are required to reside constantly at their stations; are intrusted with the care and custody of the station property, for which they are accountable; and govern the station premises. They are captains of their crews; exercise absolute control over them (subject only to the restriction of the

MICHIGAN AVENUE SHOWING AUDITORIUM AND CONGRESS HOTELS

regulations of the service and the orders of superior officers); lead them and share their perils on all occasions of rescue, taking always the steering oar when the boats are used, and directing all operations with the apparatus. They are also ex officio inspectors of customs, and as such take care of the government interests in relation to dutiable goods on wrecked vessels, until the arrival of other customs officers. By law they are also made guardians of all wrecked property until relieved by the owners or their agents, or until instructed by superior authority as to its disposition."

DETAILS OF THE LIFE SAVING SERVICE

The keeper of a Life Saving station receives a salary of one thousand dollars per annum. One surfman in each crew receives seventy dollars per month, the other members receive sixty-five dollars each while actually employed. Keepers are appointed, but surfmen are selected from eligible registers provided by the Civil Service Commission. Examinations are based on age, physical condition and experience, and a knowledge of reading and writing.

The duties of a life saving crew are stated to be as follows: "Continuous watch is kept from the stations both day and night, with beach patrol during hours of darkness and in foggy or thick weather. Two surfmen are assigned to each night watch, one of whom proceeds on patrol (in the same direction at the same time from all stations in a district, if practicable) while the other remains on watch. On the return of the first man he takes the station watch, and the second man patrols in the opposite direction." Each patrolman is equipped with a lantern and a number of red lights, which are ignited in cases of vessels seen to be in distress, or of those running too near shore, thus serving the double purpose of warning mariners of their danger or assuring them of succor if assistance is needed.

Among the various articles with which a life saving station is equipped is the gun from which is fired a projectile, and to which is attached a "shot line." The projectile is aimed so that it will fly over and beyond the deck of a vessel in distress, thus giving the sailors a line with which a larger line or hawser may be drawn aboard. The shot line is attached to the forward end of the projectile so that it will not be burned off in firing. When the gun is fired the weight and inertia of the line cause the projectile to become reversed in its flight. Only a small charge of powder is necessary, often not more than two ounces. The projectile weighs about fifteen pounds and the gun with its carriage about one hundred and sixty-five pounds. The line is coiled on a rack from which it is almost instantly drawn out by the flying projectile.

NOTABLE INSTANCES OF RESCUES

A difficulty is often met with in the case of a vessel in distress in the inability of the ship's company to co-operate with the rescuers. It is scarcely credible that sailors should have to be instructed in the use of the shot line after it reaches them, but instances have been known where the sailors made no effort to haul the line aboard with the hawser attached, and the work of the life savers through their ignorance has been delayed, and deliverance from peril jeopardized.

The most usual method of rescuing persons on a stranded vessel is by means of the "breeches-buoy," which takes one person at a time over a stretched hawser.

When there are many persons to be landed the "life-cars" are used, in which a number can be carried together. Crews from other stations are sometimes called in to assist in rescues where a number of vessels are stranded in one spot, or where for any reason there is a special emergency. The superintendent cites two instances where the Cleveland crew was called to Cincinnati, Ohio, and Newport, Kentucky, a distance of over two hundred miles, to render aid to sufferers from the inundations of the Ohio valley. Some two thousand persons were succored on these occasions. "The crew of the Sturgeon Bay Ship Canal station," the superintendent reports, "was once called at night to Chocolay Beach, near Marquette, Michigan, a distance of one hundred and ten miles. Proceeding by special train, running at the highest attainable speed, and taking with them their beach apparatus and boat, they reached the beach at midnight, and through a blinding snow storm and in spite of bitter cold were able to board two stranded vessels and rescue twenty-four persons, after every effort of the citizens had failed."

The record of disasters on the Great Lakes, the lives lost, and the persons who were succored at the life-saving stations, for the years 1900 to 1909, inclusive, is given, as follows:

Year ending June 30	Disasters	Lives lost	Persons succored at Stations
1900	251	1	103
1901	285	6	123
1902	252	13	105
1903	226	3	102
1904	249	6	115
1905	260	4	91
1906	351	19	123
1907	322	20	260
1908	390	9	86
1909	525	19	123

LIVES SAVED AT THE "CALUMET" DISASTER

The saving of lives at the time of the disaster, a description of which follows, was an achievement of the life saving crew stationed at Evanston. The particulars were related in an article printed in "The Junior Munsey," in November, 1900. "On the afternoon of November 27, 1889," runs the account, "the big steamship Calumet, deeply laden with coal, which she was carrying from Buffalo to Milwaukee, missed the lights of the city of her destination on account of a blinding snow storm; and although she was leaking badly, she was obliged to bear away for a port at Chicago.

"On her way up the lake the leak increased, because she labored so heavily in the gale. To complete the disaster, a pump that had served to keep her afloat gave out, and her master was compelled to head for the beach. She struck a bar alongshore, just off Fort Sheridan, at ten o'clock at night. As she broached to, the bilge cocks were opened to fill her quickly and keep her from pounding. She settled in the sand, with the main deck almost down to the water level, and the seas making a clean breach across her. The eighteen members of her crew hud-

dled on her upper works, where they were drenched by clouds of spray that quickly sheathed them in an ever growing mail of ice.

"About midnight, A. W. Fletcher, a resident of the neighborhood, sent a telegram to Keeper Lawson of the Evanston life saving crew, twelve miles distant, saying: 'There is a large vessel ashore off Fort Sheridan. Come.' The message reached the station at 12:30 on the morning of the 28th. How the keeper got his beach apparatus on a train that passed Evanston thirty-five minutes later, and how the gun was fired from the crest of the bluff and failed to reach because the wreck was more than a thousand yards away, need not be detailed. The surf boat, drawn by a livery team, was opposite the wreck when daylight enabled the crew to use it.

"With the aid of about fifty soldiers who had come from the fort, the crew lowered the boat stern first down a steep gully until it was in the ice laden surf. Then, finding the boat was too far down alee of the wreck, the crew grasped the boat by the rails, and heading it up the beach, they half dragged and half floated it along, bracing themselves to meet the freezing waves that dashed over them with almost whelming force, until they were far enough above the wreck to make a trial.

"Then they launched forth, to find their real danger just begun. The first breaker that rose upon them, as they crossed the inner bar, filled the boat to the thwarts. A less sturdy crew would have turned back to empty the boat, but these men only bent to their oars the harder till beyond the bar, when one bailed while the rest pulled away to the unfortunates on the breaking wreck. The oars were coated with ice till they were of more than double weight, and the oar locks had to be cleared repeatedly. And it must not be forgotten that these men had been wading through a tremendous surf, had been drenched to the skin, and that their clothing had frozen stiff upon them. They were knights fighting for lives while cased in a mail of ice an inch thick, and they won. Three trips in immediate succession were made on these terms, and six of the crew were brought at each trip."

CAPTAIN LAWSON AND HIS LIFE SAVERS RECEIVE MEDALS

It was the united opinion of all who witnessed the rescue of the shipwrecked mariners that but for the heroic conduct of the life saving crew, every man belonging to the Calumet must have perished; and in recognition of their noble devotion to duty, each man was presented with the gold medal of the service. The crew was made up of students in the Northwestern University. The names are as follows: Lawrence O. Lawson, captain; and the members of the crew, George Crosby, William Ewing, Jacob Loining, Edson B. Fowler, William L. Wilson, and Frank M. Kindig.

CHAPTER LII

THE PULLMAN STRIKE, CHICAGO HISTORICAL SOCIETY, ETC.

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THE TOWN OF PULLMAN

IN 1880, Mr. George M. Pullman, the founder and president of the Pullman Palace Car Company, fixed upon a site for the location of the works of the company, at a point in the vicinity of Lake Calumet, about fourteen miles from the central business district of Chicago. At that time the region was practically unoccupied, and was beyond the limits of the city. Here Mr. Pullman purchased a tract of thirty-five hundred acres, and began the erection of an extensive system of buildings for manufacturing purposes. In addition there was built a "model town,"—"a town from which all that is ugly, discordant and demoralizing is eliminated, and which was built as a solution of the industrial problem, based upon the idea of mutual recognition."

In the designing and building of the town one architect directed the entire work. The architect who was entrusted with this task was S. S. Beman, well known as one of the World's Fair architects. He thus had an opportunity to form an aggregation of structures in accordance with a well defined plan. It was probably the first time, says Ely, "a single architect had ever constructed a whole town systematically upon scientific principles," and the success of the completed design was acknowledged on every hand. "The plans were drawn for a large city at the start, and these have been followed without break in the unity of design. Pullman illustrates and proves in many ways both the advantages of enterprises on a vast scale, and the benefits of unified and intelligent municipal administration."

One philosopher made a comparison reviewing all the communities which have had their rise and fall in the last few generations, and noted the faults in each of

them. The failure of Brook Farm was based upon "certain contortions of human nature," he said. It was an effort to make all the members exactly resemble each other, and when it was "literally blown to pieces by the explosive elements in different souls," each one returned to his former home "to find personal identity once more." Other community experiments had been made and all failed, but the philosopher referred to found that Pullman was based on ideas far in advance of any previous attempt to bring together a large number of families dwelling under a single management of community affairs. At Pullman, said Hon. Stewart L. Woodford of New York who made the oration at the opening of the theatre, "labor will earn fair wages and capital will get generous returns. But better than factory, and richer than material production; sweeter than flowers and more beautiful than theatre, or library, or church, shall be the manhood that will be developed here."

In 1889, the town of Hyde Park, in which Pullman was situated, was annexed to Chicago, and thus it came under the general municipal control of the city, with its representatives sitting in the Common Council. It was thus subjected to the scrutiny inseparably connected with representative government, and after some years the peculiar features of its municipal regulations under the proprietary regime were superseded entirely by the ordinary processes of city administration. This was followed by court proceedings which finally ended, as stated in a report, as follows:

"Under a decree of the Supreme Court of this State, made in February, 1899, this company was required to cease within one year, the performance of all municipal functions, and within five years (subsequently extended for an additional five years) to sell and dispose of all its property at Pullman not required in its manufacturing business. This decree has been fully complied with, all the dwellings and other buildings of the town, not used for shop purposes, having been sold,—a large number of the houses being purchased by employes in the shops. From this it will be understood that the Pullman Company has now no relation to the people at Pullman except as to those engaged in its manufacturing plants, and that relation is merely employer to employe."

The great enterprise had thus failed to accomplish what its projector intended should be accomplished in establishing it. It was looked upon by many as a valuable object lesson, illustrating "the helpful combination of capital and labor," where ideal living conditions were established on an extensive scale, and where order and system were perfectly organized, according to the carefully laid plans of its founder.

MR. PULLMAN'S OWN ACCOUNT

In giving his testimony before the Strike Commission which, after the strike of 1894, made a full investigation of all the facts, Mr. Pullman gave the following account of the objects in view when the town of Pullman was established:

"The object in building Pullman was the establishment of a great manufacturing business on the most substantial basis possible, recognizing as we did, and do now, that the working people are the most important element which enters into the successful operation of any manufacturing enterprise.

"We decided to build in close proximity to the shops homes for workingmen of such character and surroundings as would prove so attractive as to cause the best

class of mechanics to seek that place for employment in preference to others. We also desired to establish the place on such a basis as would exclude all baneful influences, believing that such a policy would result in the greatest measure of success, both from a commercial point of view and also—what was equally important, or perhaps of greater importance—in a tendency toward continued elevation and improvement of the condition not only of the working people themselves, but of their children growing up around them. Accordingly the present location of Pullman was selected. That region of the country was then very sparsely populated, a very few hundred people, mostly farmers, living within a radius of perhaps a mile and a half of the site selected, where there are now living some 25,000 people.

"It is not the intention to sell to workingmen homes in Pullman, but to so limit the area of the town that they could buy homes at convenient distances from the works if they chose to do so. If any lots had been sold in Pullman it would have permitted the introduction of the baneful elements which it was the chief purpose to exclude from the immediate neighborhood of the shops and from the homes to be erected about them. The plan was to provide homes in the first place for all people who should desire to work in the shops at reasonable rentals, with the expectation that as they became able and should desire to do so they would purchase lots and erect homes for themselves at convenient distances or avail themselves of the opportunity to rent homes from other people who should build in that vicinity. As a matter of fact at the time of the strike 563 of the shop employes owned their homes, and 461 of that number are now employed in the shops, 500 others at the time of the strike lived outside, and in addition an estimated number of from 200 to 300 others employed at Pullman were owners of their houses.

DID NOT SEEK MUNICIPAL POWERS

"The company neither planned nor could it exercise any municipal powers in Pullman. It was, in fact, within the boundaries of what was legally called the village of Hyde Park, but was several miles distant from the actual village as settled at that time. The people lived there first under the ordinances of the village of Hyde Park and now live under the ordinances of the city of Chicago, and not at any time under regulations of the company. The relations of those employed in the shops are, as to the shops, the relations of employes to employer, and as to those of them and others living in the homes the relations are simply and only those of tenant to landlord. The company has not now, and never has had, any interest whatever in the business of any of the stores or shops in the town. They are rented through and managed by outside parties free from any control by the company. The people living in the town are entirely free to buy where they choose, and as a matter of fact the large disbursements in wages at Pullman, amounting to an average of $2,350,000 a year, from September, 1880, to July, 1894, has created a great competition for the trade of Pullman in the small surrounding towns as well as in Chicago, the natural result of which would be to bring the prices of all merchandise down to a minimum.

"In carrying out this general plan every care was taken in making perfect sanitary conditions by water supply and an extensive and scientific system of sewerage, paved and well-lighted streets, and open places properly ornamented with trees and shrubbery, all of which are kept in perfect repair and cleanliness by the com-

pany and at its expense. Due attention was paid to the convenience and general well being of the residents by the erection of stores and markets, a church, public schools, a library and public hall for lectures and amusements; also a hotel and boarding-houses. The basis on which rents were fixed was to make a return of 6 per cent on the actual investment, which at that time, 1881, was a reasonable return to be expected from such an investment; and in calculating what, for such a purpose, was the actual investment in the dwellings on the one hand and the other buildings on the other an allowance was made for the cost of the streets and other public improvements, just as it has to be considered in the valuation of any property for renting anywhere, all public improvements having to be paid for by the owners of a lot, either directly or by special taxation, and by him considered in the valuation. The actual operations have never shown a net return of six per cent, the amount originally contemplated. The investment for several years returned a net revenue of about 4½ per cent but during the last two years additional taxes and heavier repairs have brought the net revenue down to 3.82 per cent."

VIEWS OF OBSERVERS

There were many observers who came and reported upon the "Pullman Experiment," as it was frequently called. Professor Richard T. Ely, the eminent economist, made a careful study soon after the town of Pullman had been established when its clear-cut and methodical policy was already in force. He acknowledged the breadth of views and enlightened motives which had actuated the founder of the town of Pullman, but he was frank to say, in an article published in "Harper's Magazine," in 1885, that after looking over all the facts of the case "the conclusion was unavoidable that the idea of Pullman was un-American. . . . It is not the American ideal. It is benevolent, well-wishing feudalism, which desires the happiness of the people, but in such a way as shall please the authorities."

The town of Pullman in 1894, the year of the great strike, contained a population of some twelve thousand souls. The Pullman works employed about six thousand hands when running at full capacity, but steady work was not assured to all. No resident of Pullman could own his own place. Everything belonged to the Company, and the householder was obliged to lease his house or apartment from the owner, that is the Company. The rents averaged from fourteen to twenty-five dollars per month for dwellings, and these rents were rigorously collected whether the tenants were employed all of the time or only part of the time. Nearly all the residents were employed in the shops of the Pullman Company.

In 1894, occurred a great strike among the employes of the Pullman Company, to be described further on, and it then began to be apparent to those who well knew the conditions which had grown up in the thirteen years since its founding, that the principles upon which the municipal affairs of the town were conducted were economically and socially unsound. Writing soon after the great strike the Rev. William H. Carwardine, pastor of the First Methodist Episcopal Church at Pullman, said that there certainly was something wrong in the town. "I believe," said he, "that the town itself was established in the hope of bettering the condition of the laboring classes, but it has failed sadly of its original purpose. As seen from the railway by the passing tourist, it presents a beautiful picture. In fact it appears to be a veritable Paradise. Beautiful trees and flowers, pretty foun-

tains, glimpses here and there of artistic sweeps of landscape, gardens, rows of pretty little brick houses, church in the distance, public buildings of different descriptions, all present a beautiful picture to the traveler."

The writer, however, found another side to this attractive picture. There was a library but it was not a public library. It was a gift to the town by the founder and it contained a fine collection of some eight thousand volumes. Those who used this library were expected to pay three dollars a year for the privilege, and of course the number who patronized was limited to a very few. Standing on Arcade Row was the "Green Stone Church," so named on account of the color of the stone of which the structure is built. The company required a rental of three hundred dollars a month for the use of this beautiful edifice, and as no denomination could be found able to pay so large a rent the church stood empty for a long period. It was eventually rented at a much reduced figure.

Carwardine in his book affirms a certain admiration for the founder and considers him worthy of honor for his achievements. "It is no small thing," he says, "for one man to be able to create a vast productive industry which from a small beginning has reached a market value of fifty millions of dollars. . . . I am willing to accord honor to a man who has become rich as the result of the establishment of a great manufacturing industry. As a man of industry, possessed of a great idea and tenaciously clinging to that idea until he wrought it out to completion, rising as a poor boy in an obscure village to a great position as a business man, possessed no doubt with a desire to better his fellow-man, retaining a personal character which we have every reason to believe is honest and pure, he is an example in these things that we can hold up before the youth of our land and bid them imitate."

But while Carwardine pays this tribute to Mr. Pullman he will not allow that he belongs in the class with such benefactors as George Peabody, Peter Cooper, Philip D. Armour, and other philanthropists. The very qualities that made him successful in life, his determination and resolution, were turned into arrogance and obstinacy; and the golden opportunity for doing a great work in behalf of his fellow-men was lost.

The keen criticisms made upon the whole enterprise, after the troubles caused by the strike had drawn the attention of the press to the real situation in Pullman, are in strange contrast to the utterances of the optimistic observers we have referred to. "People are now beginning to wonder wherein lay the claim of the village to the much advertised name of 'Model Town,'" said the Minneapolis *Times*. "One thing at least is clear," said the Indianapolis *News*, "and that is, that we have had quite enough of such towns as Pullman. We have not yet reached a stage of civilization where it is wise to allow the consolidation of landlord and employer on a large scale in one individual." The Toledo *Commercial* called it a "system of perverted paternalism;" that "it should not be permitted to exist under the laws of any state of the Union."

Looking for the cause of the failure of the town to meet the expectations of its sanguine friends, the Philadelphia *Times* said: "One does not have to seek far to learn why the Pullman experiment failed to create cordial relations between the employes and the employing corporation. The real source of the failure lay

in the fact that the Pullman scheme of founding and running a manufacturing town gave the workmen no permanent or abiding interest in the town."

PRELIMINARY CONDITIONS

On the first of July, 1894, the American Railway Union, an organization of railway employes in all departments of the service, had a membership of something over one hundred thousand. The American Railway Union was a union of a number of other labor organizations and had been but recently formed under the leadership of Eugene V. Debs, with the purpose, according to its constitution adopted in 1893, of protecting its members "in all matters relating to wages and rights of employes." The constitution concludes as follows: "With this declaration of its purposes, and with boundless faith in its conquering mission, the American Railway Union consecrates itself to the great cause of industrial emancipation."

The organizations previously in existence and now united under one great organization were as follows:

The Brotherhood of Locomotive Engineers, organized in 1863.
The Order of Railway Conductors, organized in 1868.
The Brotherhood of Locomotive Firemen, organized in 1868.
The Brotherhood of Railroad Trainmen, organized in 1883.
The Switchmen's Mutual Aid Association, organized in 1886.
The Order of Railroad Telegraphers, organized in 1876
The American Railway Union, organized June 20, 1893.

"It was the evident purpose of the American Railway Union," says Bancroft, "practically to absorb all the existing organizations of railroad employes, by enrolling such portion of their members and such large numbers of railroad men not organized, as to give the union the leadership and ultimate control in all disputes between the railroads and their employes."

Liberal use has been made in the following pages of Mr. Edgar A. Bancroft's pamphlet printed the year after the strike, in which is given an excellent review of the events and the legal questions arising therefrom. In a note Mr. Bancroft explains that in the preparation of his paper he made use of "the exhaustive brief of Hon. Edwin Walker, special counsel for the government, and of the strong and luminous opinion of Hon. William A. Woods, Circuit Judge, in the contempt proceedings, United States versus Debs et al."

It will be seen that the employes of the Pullman Company had no part in the American Railway Union, and although local unions had been formed among them during the previous winter and spring they did not join in the great combination of labor unions we have just referred to. The previous year, the year of the World's Fair, was marked by a severe financial panic which affected all industries. During the following fall and winter the Company reduced its force to about two-thirds of its previous numbers, and at the same time reduced wages from thirty to fifty per cent. "The result was," says Bancroft, "that the wages earned in the lower grades of service were hardly sufficient to provide the ordinary necessities of life. The irritation caused by the reductions was much aggravated by the fact that the company was also the landlord of the majority of the workmen, and that

it made no reduction in rents. . . . It was, therefore, both natural and reasonable that the employes should be dissatisfied and restless under the conditions existing in the spring of 1894."

THE COMMENCEMENT OF THE STRIKE

On the 11th of May a strike among the Pullman employes began, and for the following seven weeks there was no disorder among the strikers. "The universal comment," says Carwardine, "was complimentary to the decorum of the strikers." As time elapsed the company made no effort to resume work. "The strike had become a lockout; the strikers seemingly were worsted. In the meantime the officers of the American Railway Union investigated conditions at Pullman, and decided that the strikers ought to be sustained with the full strength of the union."

At a convention of the governing body of the American Railway Union, held on the 12th of June, President Debs in his opening address said that the Union was the first of the railway organizations that was properly constructed; that all others "had blow-holes in their armor while this one was built for war, and no weakness would be found in it when it came time to test its armament." The convention declared in favor of taking up the fight against the Pullman Company. A committee was appointed to wait upon the manager who, however, refused to recognize them or treat with them. On June 22, the delegates, having been so instructed by their respective unions, voted that if the Pullman Company did not adjust its differences with its employes by noon of June 26, a boycott would then be enforced against the hauling of its cars.

On the 25th, the general managers of the railroads having connections at Chicago held a meeting to consider what action should be taken in case the threatened boycott should take place. The managers adopted a resolution protesting against the proposed interference with the business of the railroads, and pledging themselves to resist the boycott "in the interest of their existing contracts, and for the benefit of the traveling public." In the evening there was a large public meeting held in Chicago, called in the interest of the proposed boycott. Two of the officers of the American Railway Union addressed the meeting. "The fight meant more than the mere settlement of the strike at Pullman," said one of them. "It was a fight between labor and plutocracy, in which all the forces of capital would be united and against which all the forces of labor should combine."

BOYCOTT AGAINST PULLMAN CARS

On June 26, telegrams were sent to some two hundred different points on western railroads, as follows: "Boycott against Pullman cars in effect to-day. By order of the convention. (Signed,) E. V. Debs." More particular instructions were given in some cases. "No Pullman cars are to be handled or hauled," he explained to an inquirer. "Convention ordered boycott of Pullman cars, and this means they shall be cut out and detracked." At Chicago, the Illinois Central Railroad was selected as the first road to be dealt with, and by nine o'clock that evening not a wheel was moving on that line within the city limits.

The convention in declaring a boycott on the hauling of Pullman cars had made no request of the railroad companies, says Bancroft, in his pamphlet en-

titled "The Chicago Strike of 1894." "The boycott was a direct assault upon the property rights of the Pullman Company, intended seriously to damage its business. It was as unlawful, and if successful it would be as injurious as the destruction of its shops and its cars. It was also an unlawful interference with the business of the railroad companies, bound by contract to haul the Pullman cars. It took from them their control of one branch of their business, and directed their employes, while continuing in their service, to refuse to perform certain of its important duties. If employes could be thus controlled by an organization, the employer would be injured as seriously and as unlawfully as if tangible property of like value had been destroyed."

The situation rapidly became complicated. Beginning as a boycott in almost every case the attempt to discriminate against the Pullman cars was resisted by the officials of the railways, which action was immediately followed by a strike. "Within forty-eight hours after the issuance of the first orders, a concerted and similar course of action was adopted at all the important railroad centers from Chicago to San Francisco. Under the direction of the local representatives of the American Railway Union, the employes first detached the Pullman cars from all trains; then when any employes were discharged for disobedience of orders, all quit the service. . . . The strikers gathered in large numbers upon the station grounds and few employes dared to resist their demands. Toward new men employed to take the strikers' places, similar means were employed. Intolerable abuse was heaped upon them, violence was freely threatened and used, and they were in constant danger of assault.

"To prevent the running of trains which despite these dangers the companies were able to equip, the strikers misplaced and spiked switches, removed switch lights at night, uncoupled cars, closed crossing gates, and gathered in crowds upon the tracks. On the first day a crowd of four thousand people blocked the Illinois Central tracks at Grand Crossing. When police protection was furnished and the gates were opened, a striker deliberately threw himself in front of the train. The strikers controlled the gates and opened them for the Michigan Central trains (because only Wagner cars were hauled on this line), but closed them against those of the Illinois Central. By these and similar means express trains carrying the United States mails were held for several days by mobs of strikers. . . . At Blue Island, a mail train was derailed, its engine overturned, and the tracks blockaded. Freight cars were also overturned by the strikers and some of them set on fire. . . .

"At Grand Crossing an Illinois Central train was wrecked by drawing the spikes from the rails, and at Hammond the lines of the Monon and of the Baltimore & Ohio were completely blocked by a mob that drove the trainmen from their posts, and uncoupled and side-tracked the cars."

OTHER INCIDENTS OF THE STRIKE

The violence of these mobs was directed against unfortunate passengers as well. At many places threats of violence or of boycott were used to prevent belated passengers from obtaining food and refreshment. The boycott was used even to prevent the restaurants and boarding houses from furnishing food to marshals and deputy sheriffs. By these means,—intimidation, violence, rioting

and mob rule—the transportation of the mails and of inter-state commerce was obstructed throughout the west. At Chicago the railroads were paralyzed.

At the Union Stock Yards and at the great packing houses, all business was suspended; trains of dressed meat that had been started to eastern points on the 29th and 30th were stopped, and their contents damaged or ruined. The commerce of Chicago had come to a standstill. The supply of provisions and fuel ran low and prices proportionately increased. The principal arteries of trade through which Chicago received its supplies were controlled and closed by mobs of strikers and their sympathizers.

This was the condition of affairs when the United States filed a bill in equity for the removal of obstructions to the transportation of the mails and of inter-state commerce, and for the prevention of further interference therewith. The bill for injunction was filed in the United States Circuit Court for the Northern District of Illinois on July 2d, and, on the same day, Circuit Judge Woods and District Judge Grosscup granted the order of injunction as prayed. It was directed against the American Railway Union, its four officers and thirteen other persons, and "all persons combining and conspiring with them and all other persons whomsoever," enjoining them from in any manner interfering with, obstructing or stopping any of the twenty-two railroads named, in the carrying of inter-state commerce, or the United States mails.

The order specified a great number of acts forbidden, and contained a general order enjoining individuals from "doing any act whatever in furtherance of any conspiracy or combination to restrain either of said railroad companies or receivers in the free and unhindered control and handling of inter-state commerce." This injunction was served upon several of the defendants named, and on the same day was read to the mob at Blue Island, by whom it was received with the utmost derision and contempt. The mobs at Chicago having continued to increase in numbers, United States troops were ordered by President Cleveland, on the evening of July 3d, from Fort Sheridan to Chicago. They reached the point of disturbance on the morning of July 4th. The troops were assailed by the mobs with vile language, and an occasional stone was thrown. No organized resistance was offered, but the mob formed at other places as rapidly as it was dispersed by the troops, and the acts of violence, interference and obstruction were continued. The troops, about five hundred in number, were not able to cope with the mobs, in some cases much exceeding their own number, and soon after other troops were ordered from Fort Leavenworth, and Fort Riley, increasing the number of troops to about two thousand.

GOVERNOR ALTGELD'S PROTEST

"On July 5th, Governor Altgeld of Illinois telegraphed the President of the United States a protest against the ordering of United States troops to Chicago without any request for them from the state authorities. It stated that there was no need of such interference and that Illinois had ample military forces for the preservation of order; that no militia had been called out at Chicago because they were not needed; that militia had been ordered to two other points in the state in answer to requests, but it was found that there was no need of them there; and that the local authorities were able to preserve peace and protect property at all

points. The immediate withdrawal of the United States troops from active duty was asked.

"President Cleveland answered briefly that the troops were sent, under authority of the Constitution and laws of the United States, to remove obstructions to the mails, and the transportation of interstate commerce, and to the execution of the process of the Federal Courts."

ORDER RESTORED

"On the following day, July 6th, the mayor of Chicago asked Governor Altgeld to send immediately to Chicago such state troops as were available to aid him in restoring the peace and in suppressing and preventing violence to persons and property. Thereupon the Governor ordered two thousand of the militia into immediate service at Chicago, and within two or three days substantially the entire force of the state was on active duty there.

"On the 7th, President Debs, Grand Master Sovereign of the Knights of Labor joining with him, sent a protest to President Cleveland against the presence of United States soldiers. They claimed that the troops were being used to 'coerce and intimidate peaceable working people into humiliated obedience to the will of their oppressors.' They further insisted that the troops were unnecessary and their presence was an unjust discrimination against the employes, and an infringement upon their liberty. 'Now, sir,' they said, 'we pledge to you the power of our respective organizations, individually and collectively, for the maintenance of peace and good order and the preserving of life and property, and will aid in the arrest and punishment of all violators of the civil and criminal laws of the state or nation.'

"On the 5th, 6th, 7th and 8th, the mobs were in control and serious rioting occurred at different points in Chicago. Depredation was done by wholesale. Thousands of freight cars were overturned and burned. On the 8th, President Cleveland issued a proclamation detailing the lawlessness existing, and practically declaring martial law in Chicago. There were now eleven thousand men under arms there, beside the three thousand, one hundred policemen. Rioting continued a few days longer; the yards of two railroads with their buildings were burned; conflicts occurred between the mobs and the troops. But the blockade, however, had been raised on several lines at Chicago, and had been entirely broken by United States troops at western points where the mobs had been in control."

On the 10th, a special grand jury was impaneled, and the four officers of the American Railway Union were indicted for conspiracy to commit an offense against the United States. They were promptly arrested and released on bail, and at once President Debs issued an appeal to all striking employes and sympathizers to refrain from all acts of violence and to aid in maintaining law and order.

The officers of the American Railway Union, on the 12th, submitted to the General Managers of the various railway companies a proposition of settlement. They offered to end the strike if the railroads would re-instate without prejudice all employes. The proposition was not considered. This marked the end of the railroad strike, though sporadic acts of violence occurred at a few places thereafter.

CHAUNCEY M. DEPEW'S ACCOUNT OF THE STRIKE

At the request of the London *Times* Mr. Chauncey M. Depew, at that time president of the New York Central Railway, made a statement of the general causes and real meaning of the great railway strike, which was published in that paper. "The labor troubles in the United States" said he, "are due to the long-continued industrial depression, and the strike was caused by the ambitious effort of Mr. Debs, President of the American Railway Union, to absorb all organizations of railway employes into one. The success of the disorder and the delay in suppressing it were owing to the heretofore undefined boundary between state and federal authority. The financial crisis last year crippled many enterprises, and the uncertainties of tariff legislation which have followed prevented recovery and closed the majority of the mills and furnaces. This has made the number of unemployed greater than we have ever known. The abrupt and permanent curtailment of production and consumption has been felt in every department of American activity. From the farm to the factory every business has proportionately suffered, and the distress among workingmen has been correspondingly severe. There is universal unrest and almost frantic desire for anything in place of present conditions.

"The populist party found in this situation its opportunity, or rather the situation created the party. The idea which its members gather from its teachings is that liberty means the right to violate law and violently stop or seize railroads and industries, providing the law breakers are poor and are sufficiently strong to defeat or overawe the ordinary peace establishment of the community. In the states where this party is in power strikes, lockouts, boycotts and suppression of railway traffic receive direct assistance or passive permission from the authorities.

"With these unprecedented industrial conditions and the anomalous political relations in a few states, the elements were favorable for what in Latin countries would be revolution and with Anglo-Saxons riots, at first successful, and then reason soon reasserts herself and firmly enforces the law. The delay and disappointments in tariff legislation at Washington impaired the confidence of the country in the ability of this congress to provide measures of relief or to discover its incompetency and adjourn. An appeal to the country would lead, as everyone believes, to an immediate and decisive response.

DEBS BECOMES THE RECOGNIZED LEADER

"Mr. Eugene V. Debs was for many years a high and popular official of the Brotherhood of Locomotive Firemen and the editor of a labor magazine of advanced socialistic and somewhat anarchistic views. He conceived the idea of breaking up the existing organizations and gathering the railway world into his order. His scheme was attractive. The initiation fees were only one dollar and the annual dues twenty-five cents. The order was to control the railways and coerce their managers. Debs would begin with $1,000,000 in his treasury and possess an income of $250,000. He made his first appeal to the switchmen and selected the Great Northern Road for his attack. This line had been built paralleling the Northern Pacific, had forced the latter into bankruptcy and could not afford a tie-up. After a few days the managers of that line surrendered.

"Debs' victory surprised himself by its completeness and far-reaching consequences. East of Chicago and in the older and more thickly settled states the old organizations stood firm against him. He must again demonstrate power. Finding no real or imaginary grievance on any railway he chose to make his fight upon the trouble between the Pullman Car Company and the mechanics in its shops, over the construction of some hundreds of freight cars for various railways.

"Debs ordered a boycott of the Pullman cars, and on the refusal of the railways to break their contracts with the Pullman Company and inflict nameless cruelties upon their passengers, he ordered their lines closed. Trains were stopped wherever telegrams reached them, traffic ceased and business was paralyzed over about two-thirds the area of the United States. The reliance of the strikers was upon the impotence of the state governments and the friendship of the local authorities. They could confidently count on the co-operation of the rival local politicians. The industrial and financial distress gave them general sympathy, though their action intensified the suffering a thousandfold.

"The results proved how well Debs and his associates understood the powerlessness of the states to control the situation. With the exception of three transcontinental lines, all our railroads are chartered by the several states. State laws have permitted consolidation of connecting roads, so that many companies run through several states as one company under one management, but the portion of the line in each is still wholly subject to its charter in that state. The state governments, often controlled by opposite parties, have no joint or common action. Sympathy with strikers in Illinois at one end and in California 2,000 miles off, at the other, stops travel and traffic.

GOVERNOR ALTGELD'S BAD BREAK

"State autonomy reached its perilous condition when the Governor of Illinois gave great moral support to the strike by rebuking President Cleveland and virtually ordering the United States troops out of his territory. It reached its ridiculous stage when the Governor of California requested a permit from the strike leader to visit his capital, which was contemptuously refused. The popular belief has always been that the national government could not act in repressing riots or disorder until requested to by the state authorities of a commonwealth which was unable to cope with the insurrection.

"President Cleveland is sluggish but courageous. Legislation following the Civil war had given the general government powers unused and forgotten. Congress, in enacting the interstate commerce law, had assumed to regulate commerce between the states and unconsciously with it the responsibility to keep open interstate lines as national highways. The President, having satisfied himself as to his powers, did not hesitate in the performance of his duties. After President Cleveland's proclamation it required a few days for the general public and the strike leaders to grasp the idea that the President was in earnest, and the army and navy in motion, when this gigantic conspiracy collapsed as suddenly as it had organized.

"The losses occasioned by the strike are enormous, but it is destined to prove of incalculable benefit to the country. The national idea has been strengthened and broadened. Safe anchorage has been found for persons and property. One of the hopeful features of the situation has been the unmistakable display of

loyalty in the south. The so-called rebel states unanimously demanded the intervention of the federal power to restore order before everything else.

"'We surrendered,' they said, 'to a government with ample power to enforce the law and we will live under no other.'

"The far-reaching results of this short revolution can be briefly stated. Interstate railways are national highways which the government will keep open at any cost, and a method will be provided for the settlement of differences with their employes. The general government will find a way to protect the citizens of the states, who, in a larger sense, are citizens of the United States, from the cowardice of all state officers or their corrupt sympathy with law breakers. Every vested interest is more secure and the rights of every one more safe."

AFTERMATH OF THE STRIKE

Notwithstanding the contempt shown for the injunction by the rougher elements among the strikers, for no doubt many of the rioters were hoodlums who would be found on any scene of trouble and disorder, it soon began to have its effect, especially after the arrest of the leaders. But they at once began to disclaim any intention of committing acts of violence. Such violence, intimidation and depredation as had occurred, they said, were entirely unauthorized and disapproved. But in view of what had actually happened their statements carried little weight. "It was not the soldiers that ended the strike," said Debs in his testimony before the Strike Commission, "it was simply the United States Courts that ended it. Our men were in a position that never would have been shaken under any circumstances if we had been permitted to remain upon the field, to remain among them. When we were taken from the scene of action and restrained from sending telegrams or issuing orders or answering questions, then the minions of the corporations would be put to work at such places. The headquarters were demoralized and abandoned, we could not answer any telegrams or questions that would come in. The men went back to work . . . and the strike was broken up, . . . not by the army, and not by any power, but simply by the government of the United States in restraining us from discharging our duties as officers and representatives of our employes."

Criminal prosecutions are utterly valueless in a case like the strike of 1894. "The large number of persons in the conspiracy was a great protection against criminal prosecutions," says Bancroft; "it was deemed by those engaged in the lawlessness a perfect protection."

The conflicts and disorders occurring during this memorable strike resulted in the death of twenty-six persons, the serious injury of sixty-eight others, without taking into account minor injuries to hundreds of others still. The Strike Commission, composed of the Commissioner of Labor, Carroll D. Wright, N. E. Worthington and John D. Kernan, appointed by the President under an existing statute providing for such emergencies, held sessions in Chicago to investigate the causes of the strike. Their report ended their responsibility in the matter, as the law provided that on the rendering of the report their services should cease. Bancroft criticises their report as attributing "the lawlessness to defects in the law" while not indicating what those defects were. A special grand jury was summoned on July 10th to deal with the violations of law, and the offenders were

OLD PULLMAN BUILDING

Dearborn Park in foreground, the site of the present Public Library

PULLMAN BUILDING, MICHIGAN AVENUE AND ADAMS STREET

brought to trial. The indictments were against Debs and others for conspiracy, Mr. Edwin Walker appearing as chief counsel for the prosecution and Mr. S. S. Gregory for the defense.

Owing to the illness of a juryman during the trial the proceedings were broken off, and soon after the case was removed from the docket in view of the fact that the defendants must immediately appear before the United States Circuit Court and answer to the charge of contempt. In due course they were found guilty on this charge and Judge Woods sentenced Debs to six months' confinement in jail, and his co-defendants to three months each; and designated the jail at Woodstock, the county seat of McHenry County, as the place of confinement. Here Debs and his associates served their terms, and thus ended the American Railway Union strike of 1894.

THE TOWN OF PULLMAN TODAY

Eighteen years have passed since the events which convulsed the town of Pullman (even then a part of Chicago), and which changed the course of its history and development took place. No longer do writers, attracted by its fame as a new and interesting industrial experiment, resort thither to expatiate upon its wonders in fervid language and indulge in predictions of a new golden age.

The visitor today finds a busy and prosperous community, the inhabitants dwelling in their own houses, so far as they are able to own them; and its affairs conducted like those of any other district lying within the ample area of Chicago. Most of the residents are now, as formerly, employes in the great works of the Pullman Company, where they find steady work at good wages, where they enjoy all the benefits and privileges of a high class neighborhood surrounded by a naturally beautiful location,—a broad sheet of water, Lake Calumet, on the one hand, and the wide prairies and groves, fast filling with dwellings, on the other.

One may see handsome rows of houses, standing in well kept surroundings, extensive ranges of workshops of good architectural design, while new additions, constantly being made, follow out in general the same lines of artistic forms. The old Corliss engine of over two thousand horsepower, which was the wonder of the Centennial Exposition in 1876, and which Mr. Pullman purchased and had transported here in thirty-five cars, and which for thirty years has furnished power for the great machine shops of the company, has at length (January, 1911,) ceased from its labors, and is now dismantled and its parts consigned to the scrap heap.

But the majority of the thousands of men employed in the Pullman works do not make their homes in the so-called "Town of Pullman." Numbering from fifteen to eighteen thousand hands, not one-fifth of them could find living accommodations in the town. They come from all directions to their work, chiefly by trains on the Illinois Central from Randolph and Van Buren streets where they gather from regions far up on the north side or far out on the west and south sides of the city. Heavily loaded trains, running at express speed, bring multitudes to their work in the morning and carry them away at night. As the hour for beginning work approaches the streets are filled with the human tide gradually melting away as it is absorbed by the great shops of the company.

Pullman is still an interesting spot to the visitor whose mind reverts to the

scenes of its earlier history. No place was ever more thoroughly described by travelers nor more fully illustrated in the publications of the day. Even Brook Farm with its memories of the transcendentalists, nor New Harmony hopefully guided by Robert Owen, ever received as much attention from the public as did the little town of Pullman, which through many vicissitudes has at length emerged into the white light of common day,—a town now prosperously fulfilling the ordinary functions of community life, and peacefully pursuing the even tenor of its existence.

THE CHICAGO HISTORICAL SOCIETY

The act of the legislature incorporating the Chicago Historical Society was passed on the 7th of February, 1857. The persons associated in the formation of the Society and named in the charter as constituting a body politic were William H. Brown, William B. Ogden, J. Young Scammon, Mason Brayman, Mark Skinner, George Manierre, John H. Kinzie, J. V. Z. Blaney, E. I. Tinkham, J. D. Webster, W. A. Smallwood, Van H. Higgins, N. S. Davis, Charles H. Ray, Samuel Dexter Ward, Mahlon D. Ogden, Franklin Scammon, Ezra B. McCagg, and William Barry. The bill was introduced into the legislature by Isaac N. Arnold, then a member of that body.

The Society had, however, been in existence as a voluntary organization for some time previous to its incorporation. On the 24th of April, 1856, a constitution was adopted which defined its general object to be "to encourage historical inquiry and spread historical information, especially within the State of Illinois, and also within the entire territory of the Northwest."

The first president of the Society was William H. Brown; vice-presidents, William B. Ogden and J. Young Scammon; S. D. Ward, treasurer; William Barry, recording secretary and librarian; and Charles H. Ray, corresponding secretary. Among the names enrolled on its list of membership at one time or another it is interesting to note the names of such men as Sidney Breese, Lewis Cass, Edward Coles, Stephen A. Douglas, Abraham Lincoln, John Reynolds, Lyman Trumbull, Hiram W. Beckwith, Orville H. Browning, Zebina Eastman, Ninian W. Edwards, George Flower, Joseph Gillespie, Peter A. Menard, John Mason Peck, William H. Perrin, William Pickering, and Hooper Warren.

The names of those who have been presidents of the Society, given in the order of their terms of service, are William H. Brown, Walter L. Newberry, J. Young Scammon, Edwin H. Sheldon, Isaac N. Arnold, Elihu B. Washburne, Edward G. Mason, John N. Jewett, Franklin H. Head, and Thomas Dent.

Those who have discharged the duties of the secretary's office are as follows: William Barry, Thomas H. Armstrong, Lemuel G. Olmstead, J. W. Hoyt, William Corkran, Beldon F. Culver, Albert D. Hager, John Moses, Charles Evans, James W. Fertig, and Miss Caroline M. McIlvaine, the present incumbent.

The prosperity of the Society was remarkable. Its work seems to have enlisted an amount of general interest in the special field of its activities little understood in these days, when such enthusiasms are confined to much smaller circles. In 1868, only eleven years after the society had been incorporated, Mr. Arnold in an address before the society reported the total number of volumes, pamphlets and manuscripts collected as 100,205, "a fact," says Miss McIlvaine, "which speaks well for the energy of the early members, who though few were enthusi-

astic." We are further told that "These collections, housed at this time in the Society's own building erected at a cost of sixty thousand dollars, and thought to be fire-proof, consisted of complete files of colonial, territorial and state laws, journals, etc., probably the largest collection of slavery and Civil war material in the country, including the original Emancipation Proclamation, also early newspapers, and hundreds of personal narratives by pioneers of the Northwest. All of these with the records of the Society, were reduced to ashes on October 9, 1871."

ANTE-FIRE HISTORY OF THE SOCIETY

Some years before the fire the Society had made use of a large room in a building belonging to Walter L. Newberry, at the corner of North Wells and Kinzie streets, but in 1868 a new building was dedicated situated at the northwest corner of Dearborn avenue and Ontario street, this site remaining as the location of the Society to this day. Large gifts of funds had been received from time to time, notably the generous endowment made by the estate of Henry D. Gilpin in 1860, amounting to sixty-four thousand dollars. This fund is still intact and with other endowment funds produces a handsome annual income for the Society.

Some further details regarding the Gilpin endowment fund may properly be added. From Miss Mellvaine's sketch of the Society, printed in the Proceedings of the Illinois State Library, the following is quoted: "Mr. Henry D. Gilpin, a public spirited citizen of Philadelphia, who died in 1860, made the Society a residuary legatee under his will, the proceeds of his bequest to be used for the erection and maintenance of a fireproof library building. It might with propriety be said here, in explanation of the fact of so generous a bequest coming to a western institution from a man whose life was entirely spent in the East, that Mr. Gilpin had large real estate holdings in Chicago, managed by the dean of real estate men of his day, Samuel H. Kerfoot. Mr. Gilpin wishing to make some return to the city where these profitable investments had been made, at one time asked Mr. Kerfoot to advise him of the name of some institution worthy to become the recipient of such acknowledgment. Mr. Kerfoot named the Chicago Historical Society, of which he was a life member."

When the building and its contents were destroyed in the great fire it seemed for a time as if the Society was crushed beyond recovery. But few of its members were able to give attention to its interests, being themselves absorbed in the task of retrieving their own losses in the great disaster. No meetings were held for three years, and in the meantime the volumes and materials which were donated to the Society as the nucleus of a new collection were destroyed in a fire which occurred in 1874. This latter loss, however, was not of so serious a nature as the former one, but the destruction was complete, and the Society was without a home, without a collection, but fortunately its endowment funds survived the general wreck.

A THIRD COLLECTION FORMED

Once more the friends of the Society entered upon the task of forming a collection. The nucleus of a third library slowly began to take shape. It is related that almost before the ashes were cold John Wentworth began to re-

assemble for the Society's collections the files of the Chicago *Democrat* which he had previously brought together with much labor and expense. "This," says Miss McIlvaine, "is only one instance among hundreds, for loyal pioneer citizens of Chicago and Illinois, who had not suffered by the fire, contributed from their private libraries whatever was of interest to the Society. In this way the histories, directories, and gazetteers of the early days in Illinois were sooner or later almost all restored to the library."

On the 16th of October, 1877, the new building of the Society was completed, and stands today as a splendid specimen of architecture, the ornament of the neighborhood in which it is situated. "The present home of the Society," says Miss McIlvaine, "absolutely fireproof in its construction and appointments, now houses a collection of books and manuscripts larger by one-half than that owned at the time of the great fire. With the object of collecting the materials for the history of this part of our country, the officers of the Society have through the years watched the book marts of the world to buy for the library the source books, original editions, newspapers, and above all the manuscripts which should make this collection a storehouse for the future writers and teachers of history to draw upon, a storehouse where the materials for original research relative to the Middle West might be found."

In addition to its library the Society possesses an extensive collection of historical objects which are displayed in suitable glass cases convenient for inspection. The gallery of paintings contains portraits of all the presidents of the Society, besides those of prominent men and women of the city and state; also of historical personages known in connection with the French regime. The most imposing work of art in the Society's rooms is perhaps the painting by Armitage to commemorate the burning of Chicago. Allegorical figures of Britannia and Columbia ministering to stricken Chicago are the principal features of interest in the painting. It was made on the order of the London Graphic, and presented to the City of Chicago and afterward placed in the rooms of the Society.

ENDOWMENT FUNDS OF THE SOCIETY

There is a list of the various endowment funds of the Chicago Historical Society printed in the annual report for the year ending October 31, 1910. These are as follows:

The Henry D. Gilpin Fund, now amounting to $67,218.90, is the first and most important. The income from this fund is available only for the maintenance of the Gilpin Library.

The Jonathan Burr Fund consists of a legacy of $2,000, the income from which is to be used for printing the publications of the Society.

The Philo Carpenter Fund consists of a legacy of $1,000, the income from which is to be used for binding books and periodicals.

The Marshall Field Fund amounts to $10,000, the income from which is to be used toward defraying the expenses of editing, printing and distributing the Society's publications.

The Polk Diary Fund amounts to $3,500, the income from which is to be used for defraying the expenses of editing, publishing and distributing the Society's publications.

The Lucretia Pond Fund amounts to $13,500, the income from which is to be used in the purchase of books, pamphlets and documents, or pictures and paintings of historical interest.

The Elizabeth Hammond Stickney Fund amounts to $5,000, the income from which is to be used in maintaining the Stickney Library and in making additions thereto.

Other funds, the incomes from which are not directed into any specified channel, are:

The T. Mauro Garrett Fund	$1,000
The Huntington W. Jackson Fund	1,000
The Lucretia J. Tilton Fund	3,000
The Elias T. Watkins Fund	5,000
The Henry J. Willing Fund	2,500

The enlightened policy of the Society, as administered by its officers and Executive Committee, places it among the most valuable institutions of its kind in the city, and renders it capable of performing high class service to the cause of historical research. Its broad and generous dealings with searchers for information are not as well understood or appreciated as they should be, its treasures are not as widely known or valued for what they are, and, while its doors are always open to visitors without charge, it is constantly passed by thousands who know nothing of what its purposes are or what a treasure of knowledge is contained within its walls. Though the Society was founded and is maintained by private funds, says the librarian, "the public is welcome at all times to its library and museum."

THE COOK COUNTY HISTORICAL SOCIETY

The promoters of the movement which resulted in the organization of the Cook County Historical Society were actuated by the belief that, notwithstanding the existence of the old and highly esteemed Chicago Historical Society, a society with the purposes expressed in its title should be formed that could be recognized by the county authorities, and eventually become a public institution under the auspices of the county. Throughout the state of Illinois there are some ten or more counties in which such societies are in existence bearing the names of the counties in which the field of their activities lays. Owing to the size and importance of the Chicago Historical Society, and the broad and liberal policy of its management, no great need of a county society had been felt in the past, as that society seemed to be working in a thoroughly efficient manner and giving good service to the public.

The great growth of population in Cook County and its constantly accumulating stores of material seemed, at length, to suggest a distinctively County Historical Society. It seemed evident, too, that even with the facilities afforded by the Chicago Historical Society there was still a large and inviting field in the outlying districts of Cook County, the records of which had so far received but comparatively slight attention. Cook County, containing fifty-eight distinct municipalities and covering an area about five times that of the City of Chicago, is possessed of much historical interest, and the work of the new society would be to gather materials and awaken an interest among the people in all the regions lying within the limits of the county. Such a society would have the advantage, if centrally located, of being accessible to a great number of people.

The Cook County Historical Society was incorporated June 7th, 1909. Its object, as stated in its charter, is "to collect and preserve the materials of history concerning Cook County, in the State of Illinois, and to disseminate historical information." The first board of trustees was composed of five persons, Hon. Jesse Holdom, John M. Ewen, Frank W. Smith, John H. Wigmore, and J. Seymour Currey. Judge Holdom was elected president, and Mr. Currey vice president.

Recognition was then sought from the county board to the extent of permitting the new society the use of a room in its building, where a beginning could be made towards a collection of books and materials. The proposal was not acted upon by the county board at that time, and consequently the work was not begun. It is hoped, however, that the board will allow space for the accommodation of the society's collection which almost without effort has already begun to grow, several hundred volumes and pamphlets having so far come to hand.

The Chicago *Tribune,* commenting upon the announcement that the Cook County Historical Society had been formed, in its issue of June 12th, 1909, used this language: "If the newly incorporated society can secure the coöperation of a large number of people as supporting members and make its existence felt through a series of popular lectures or by means of creditable publications from time to time its place in the community will be assured. The stimulus to interest in the story of local development is sufficient reason for its establishment."

CHAPTER LIII

IROQUOIS FIRE

THE PLAY OF "BLUEBEARD"—ALARM OF FIRE—HEROISM OF AN ACTOR—PANIC IN THE AUDIENCE—EXITS FOUND CHOKED—VAIN ATTEMPTS TO ESCAPE—RESCUES BY STUDENTS IN ADJOINING BUILDING—MANY PERSONS CRUSHED TO DEATH—FIREMEN AND POLICEMEN COME TO THE RESCUE—AID RENDERED BY VOLUNTEERS—REMOVAL OF THE DEAD—SAD SEARCHES FOR LOST ONES—GRIEF OF MOURNERS—DEFECTS FOUND IN THE THEATRE—HEAVY GATES PREVENT EXIT—MEASURES TAKEN TO AVOID FUTURE THEATRE DISASTERS—THE ARMOUR INSTITUTE—PURPOSES OF THE INSTITUTE—ITS SCOPE AND RESULTS—THE CHICAGO BOARD OF TRADE—EARLY EXPERIENCES—WAR RECORD OF THE BOARD—PATRIOTIC RESOLUTIONS—CORN THE GREATEST PRODUCT—ADDRESS BY GOVERNOR OGLESBY—THE NATIONAL CORN EXPOSITION—THE ILLINOIS TUNNEL COMPANY—EXCAVATIONS COMMENCED IN 1901—ORIGIN OF THE WORK—FIELD OF OPERATIONS—DESCRIPTION OF THE TUNNELS—ROUTES OF THE TUNNELS—INTERESTING DETAILS—ASPECTS OF THE INTERIOR.

THE IROQUOIS FIRE

THE end of 1903 was signalized by a tragedy which was the greatest that had ever befallen the city.[1] On Wednesday afternoon, December 30, a fire in the Iroquois theatre, on the north side of Randolph street, between State and Dearborn streets, burned and smothered to death almost six hundred people, the most of whom were women and little children. The theatre was crowded, with spectators standing around the walls two or three deep. The play was the scenic extravaganza "Mr. Bluebeard," with Eddie Foy, the comedian, taking the principal part. Not a month before the theatre had been opened with this play, and on this afternoon scores of women and young girls and children were having a special holiday treat. "Don't fail to have the children see 'Mr. Bluebeard,'" read the advertisement put up everywhere through the city. The audience was merry with the Christmas spirit, there were many little theatre parties and family groups, some of them from out of town. Little did the pleasure seekers think, as they admired the splendor and capaciousness of the new corridors and auditorium, of the barred exits, the defective fire curtain, the inadequate lighting equipment, in this so-called fireproof building.

The second act was in progress, and the chorus was dreamily dancing and winding about in a moonlight scene, when a little flicker of flame appeared in the scenery above the stage. Those that noticed it saw a stage employe come out

[1] This account is based largely on "The Great Chicago Theatre Disaster," by Marshall Everett.

and try to extinguish it by clapping it out between his hands. It grew larger, spreading to the network of draperies and scenery above, and still the chorus, who had seen many such fires as this put out by stage assistants, danced bravely on to the music of the orchestra, thus reassuring the great audience, which knew that something was wrong, though it could not tell how serious it was. The fire had spread through the scenery high above the stage, and embers and bits of blazing cloth dropped down about the dancers, who fell back, pale and trembling. Just at that moment Eddie Foy, in strange, grotesque make-up, rushed to the front of the stage to reassure the audience, who were by this time thoroughly terrified. They had risen in their seats and were struggling against the impulse to fly, seeming to realize even in their fright that the danger of a panic might be greater than the danger of fire. While running onto the stage the comedian, searching for his little six year old boy, had found him, and called to a stage hand, "Take my boy, Bryan, there! Get him out! There by the stage way!" When he saw the boy safely carried through the door he turned to the audience, and "Keep quiet," he shouted. "Quiet! Go out in order! Don't get excited!" At the same time he was urging the orchestra to play, play, play—play anything to keep the music going. The director bravely led the players, who looked up into the whirling mass of fire and knew well their danger. Still the actor stood there, alternately begging the terror stricken people to avoid a panic, and urging on the orchestra. One by one the musicians dropped violin, horn, flute and other instruments, and disappeared through their exit under the stage, leaving the actor and the director alone, the sparks falling all about them. At last they fled, just in time to escape the torrent of fire that rushed out into the auditorium. The clown of the play had become the hero. A few moments before some one had shouted, "Drop the fire curtain;" as Foy fled from the stage the curtain started to come down, stopped, swayed as from a heavy wind, and there it remained caught, leaving a gaping space of several feet between its lower edge and the stage.

THE PANIC IN THE AUDIENCE

As the curtain was dropped, a door in the rear had been thrown open by the performers, who were fleeing from the fire that was sweeping all about them. The draft thus formed changed the stage in an instant from a dark, cave-like, smoke concealed scene of chaos into a bright mass of flame, which was hurled by the draft bellowing into the auditorium. Before it the crowd broke frantically, the hundreds of women and children rushing toward the doors, groping desperately for exits whose location was neither known nor indicated to them, trampling each other on the ground in maddened effort to escape the burning and suffocation. Every place of possible exit was jammed in a moment with human beings struggling, fighting for life. Some of the doors were almost instantly choked up with those who had fallen or been thrown and crushed, so that no human power could make egress possible. Against this mass came those from behind in frenzied struggle, while mothers were torn from their children, husbands from their wives, some being borne along to safety, others to their death.

While some of the exits were made impassable by the bodies of those who had fallen about them, others were securely locked and barred against those frantically pushing and struggling to open them. The fire swept through the great spaces,

GLORIFICATION OF DISCOVERY—BY CRATT

Statue in Garfield Park

in a lightning-like blast burning hundreds to black, charred, unrecognizable forms, and suffocating others with its heat and gases; then, finding little in the material of the building itself to feed on, it whirled back upon the stage, where it swept roaring through the inflammable structure to be found there, leaving its wretched victims to struggle in horrible darkness.

VAIN ATTEMPTS TO ESCAPE

The most of those on the main floor somehow managed to force their way out. In the two balconies above, where the aisles and exits were narrower, where people were thrown down on the stairways and trampled upon, where the draft carried the destroying flames and gas upward, there were few that were spared. Many who were not in the fatal press at the doors and landings had dropped down, burned beyond recognition; and others, buried beneath a mass of humanity, were not touched by the flames. Others, who were suffocated, appeared in death as they had looked in life, when they were found later. The blast of fire and smoke quieted whatever cries of despair there were, and when the firemen entered the populous chamber of the dead, they found there silence. Although outside the theatre firemen were pouring over the building great streams of water, it was little guessed how many hundreds of people within were already beyond saving. No one could get into the auditorium of the theatre, and unspeakably more terrible, no one could get out.

In the rear of the building it was very different. The theatre was in the shape of an L, extending back (north) from the street to an alley, and, in the rear, west to Dearborn street, along the alley. This north wing, which formed the base of the L, was occupied by the stage at the extreme end, and the auditorium; the rest of the theatre being handsomely fitted up with foyer, entrances and parlors. The alley wall, on the north side of the auditorium and stage, had many windows and emergency exits and fire escapes built in the form of iron galleries which led to stairways. These stairways were built close to the wall and led down to the alley. The actors and chorus had all, except two only, who were burned, escaped from the stage exit on the alley. To the exits leading upon the galleries the audience within rushed frantically and, where the doors would open, they surged out and found themselves carried along resistlessly.

As the mass from each exit made its way along the gallery and down the stair, it was met at the next exit ahead by another crush of people being pushed from behind at right angles, coming from another part of the theatre. The two bodies, each one impelled by a terrible force, made an immovable blockade. Here people were, already out in the air, apparently away from the dangers of the fire, and death again before them.

In a twenty foot angle of a stairway where the throngs from two balcony exits issued, two hundred corpses were piled up, and both passages were made useless for escape, the dead being heaped ten feet high in front of the doorways. Some thought to save themselves by jumping to the ground far below, and met their death in that way. Those farthest in advance had escaped the crush at the exit doorways, and were just about to reach the end of the long narrow stairs, and so escape death, when just in front of them a steel window shutter flew open, impelled by the volume of superheated air within, and out poured a volume of flame

that destroyed all those who did not jump to their death on the icy pavement below rather than face this new horror.

RESCUE BY STUDENTS IN NORTHWESTERN UNIVERSITY BUILDING

A bright spot in this scene of grim tragedy was the heroism of a number of men who were working in the rooms of the law, dental and pharmacy schools of the Northwestern University, directly across the alley from the theatre building. They were papering and renovating some rooms of an upper story opposite the topmost balcony of the theatre; a glance at the terrible scenes across the narrow abyss set them instantly at the perilous rescue; dragging to the window long heavy planks with which they were working, with almost superhuman strength and ingenuity they thrust the boards through the window, lifted them up, balanced one end on the window ledge, and dropped the other end.

With anguish of hope and despair the scores waiting in the stifling doorway opposite, and the breathless spectators below saw the boards fall across the space towards the useless fire escape. They came down, and with a great pound landed on the iron platform. A glad cry went up. They were long enough to span the distance! They fell true! At once the stream of humanity poured across this frail support, urged terribly from behind.

It lasted but a few seconds, but in that brief time about sixteen human beings crawled to safety along the plank stretching over the dizzy chasm. The last ones who crossed came with clothing in flames, and were helped through the window, fainting with pain and terror. Behind them the fire had overtaken hundreds who were unable to escape. The workmen, students and policemen then rushed across the perilous bridge into the smoke and heat, and dragged forth some who had reached the platform only to be destroyed by the blast from within. Then they, too, were driven back from the furnace where hundreds were burned to death.

In another part of the theatre there was a frightful scene of struggle; in the angle of the stairway, where the frantic stream of people coming from the second balcony met and battled with those fleeing from the first balcony, a pile of the dead covered a space fifteen or twenty feet square, and was nearly seven feet high. At that point they were entirely out of danger from the fire itself as they had now come out of the theatre proper into the separate building containing the foyer. There they were crushed to death in the maddened rush of the panic. In that part of the Iroquois building, the only evidences of any damage done were a few windows broken in the human struggle. Everything else around this ghastly pile of inanimate bodies was untouched, giving no indication of the conflict that had raged behind the barred and blockaded doors.

FIREMEN AND POLICEMEN ARRIVE ON THE SCENE

A fire alarm had been given by an usher when the creeping flames were first noticed on the stage, and in a few moments the engines and firemen were sending streams of water over the exterior of the building. Chief of Police O'Neill and Assistant Chief Schuettler, after ordering the captains and men from a dozen stations to go to the fire, themselves rushed to the theatre and led the rescuers into the building. At the doors the dead were piled eight or ten feet high, over which some of the firemen crawled with hose, to extinguish the flames within. Many

were discovered to be alive and were carried to a place of safety. With greatest difficulty, so inextricably interwoven were the bodies of the victims, could the men begin their work of carrying out the dead.

"Look out for the living!" shouted the chief to his men. "Try to find those who are alive;" and when from the heap a faint moan was heard, "Some one alive there, boys," he urged; "Lively now!" And so began the task of bearing out the victims of this greatest of American theatre disasters. As the firemen were able to penetrate into the theatre, they found one ghastly scene after another. At the landing where the stream from the third balcony poured in at right angles to the raging tide of humanity coming from the first balcony, there had been a whirlpool of struggling people stamping each other under foot and stopping all progress down the stairs. Into this mad circle still plunged those who were coming from different directions, some trying to climb over the top of the heap, some trampled to death, and many caught and held tightly until they were crushed or suffocated, for the smoke was heavy about that fatal landing.

SUBSEQUENT WORK OF THE FIREMEN AND POLICEMEN

By the light of dim, flickering lanterns the policemen and firemen worked, disentangling and passing out the bodies to those who took them outside, laying them along the sidewalk or in Thompson's Restaurant next door, which had been hastily turned into a hospital. The balconies were searched and bodies found in the aisles; some there were who had remained sitting in their seats, as if still living. Others of these were burned beyond recognition. After a short time the search was made more effective by the Edison Company's putting in forty arc lights, which shone bravely through the smoke. So many little children were among the dead that the rescuers found their grim task well nigh heart breaking, as they lifted out one small girl or boy after another, bruised and burned.

"Give that girl to some one else and get back there," shouted Chief Musham to a fireman, who walked on with his burden. "Hand that girl to some one else," the chief commanded. The fireman looked up, and with tears falling down his blackened cheeks, he said, "Chief, I've got a girl like this at home. I want to carry this one out." "Go ahead," said the chief, and as the fireman went down the stairs carrying the body, the little group working at the landing stood aside to let him pass.

On they worked frantically, hoping to find that some in the heaps of apparently lifeless bodies could still be revived; now and then a joyful cry from some one of the workers would tell that he had seen a protruding hand or foot move, and then they would strain the harder to loosen the bodies and carry the living out to the air, sometimes having to pull as sailors do at a rope to extricate a body from the heap. Everybody worked. The newspaper men, who alone beside the firemen and policemen were in the theatre, threw aside pencils and notebooks and helped to carry out the bodies. Orders had been sent out for physicians, and already many had gathered at the improvised hospital to which the victims were being taken.

AID RENDERED BY VOLUNTEERS

Women who announced themselves as nurses volunteered their services, and among the dying two priests were offering the comfort of the last sacrament. As

fast as the victims were brought into Thompson's they were laid on the marble topped tables and every effort made to revive them. When it was ascertained that life had departed, they were removed to make room for new arrivals, and placed along the floor. As fast as ambulances, regular and improvised, could be filled, they drove away to the morgues, where the bodies were placed in rows. Each one was marked, according to a system adopted by the police, with a tag numbered to correspond with the number on an envelope containing the jewelry and small possessions which had been found on the bodies at the time of their removal from the theatre. The envelopes were sent to police headquarters, and those inquiring after missing friends and relatives were sent to the city hall to inspect the envelopes. Until evening the police searched, and when the last body had been taken out, the doors were closed and the police called away.

So great was the number of conveyances needed that besides all the ambulances and police patrols, it was necessary to press into the service many drays and express wagons. Delivery wagons were sent by dry goods stores on State street, and by city transfer companies. As soon as one wagon was filled with the blanket-wrapped bodies lying along the sidewalk, another would back up to the sidewalk and take its place. Each load was accompanied by two policemen, and many of the wagons were preceded by policemen who had to make way for them through the dense crowds which filled the street near by in spite of the fire lines which the police had established across Randolph street at State and Dearborn streets. At the morgues the small ornaments and possessions were removed from each body, numbered according to the adopted plan, and a sheet was drawn over the form, to cover the pitiful sight.

FRIENDS SEARCH AMONG THE DEAD

At first there were but few people who came to the undertaking rooms to look for friends, as many knew nothing of the disaster until the theatre-goers failed to return home at the accustomed hour. Late in the evening the doors were closed to all but physicians, and those who came were told to return in the morning. At ten o'clock the doors were open, and the long quiet line passed through rooms where the lifeless, sheeted forms lay in rows along the walls. Here and there one stopped to point out a figure which was that of wife, of little son, or sister, and the body was then taken home. There was stillness and awe in every chamber, and one heard no hysterical cries or wailings of sorrow there. The grief was too terrible and too benumbing for that.

In the police offices the men read over to one seeker after another the descriptions written on the envelopes of trinkets, interrupted by the sobbing of women and the broken voices of men, as they were given a number, and went hurriedly away to the undertaking room where their dear ones lay. Men had lost their entire families,—wife and children; parents had lost their children, and even whole families had been destroyed together; there was scarcely a neighborhood throughout the city and its suburbs from which some one had not been taken. Pitiful was the sight during the first days of the new year, when many a funeral procession was seen moving along after two or three white hearses, and more heart rending far was the thought of the homes in which children would no longer

play and laugh, in which the mother was gone, or the young daughter's presence was missing.

Five hundred and seventy-one men, women and children had lost their lives within fifteen minutes, in one of the most terrible catastrophes in the history of the country. About seventy-five of those on the first floor perished, two hundred from the first balcony, and 300 from the gallery above. Men of all classes had proved themselves heroes both during the panic and in the rescue work following. Only twice before was so great a theatre fire known to be. In St. Petersburg a theatre burned in Christmas week of 1836, in which seven hundred people lost their lives. On December 8, 1881, a theatre in Vienna was destroyed, the dead numbering eight hundred and seventy-five.

THE GRIEF OF THE MOURNERS

The grief of the mourners, and these included indeed the entire city, was mingled with the bitterness of knowing how needless was the immense loss of life. Though the building in its furnishings was one of the handsomest in the city, alleged to be fireproof, and equipped with exits and fire escapes, these were rendered ineffective through criminal carelessness and oversight of inspectors and managers.

In the investigation that followed one after another of the city officials and theatre managers testified to defective construction, lack of precautions taken and negligence of duty. The fire originated in a spark which flew up from a stage light, igniting a bit of the scenery. In a few moments it was beyond the control of those who were trying to smother it. Attempts to extinguish it with tubes of "kilfyre" were unsuccessful, and when the supposed fireproof curtain was ordered down, it caught on a projecting bracket used for a calcium light, and left a space several feet wide through which the flames swept out into the auditorium.

Another safeguard that was ineffectual was that of the great flues constructed so that flames on the stage would be drawn directly upward and not be sucked out into the main part of the theatre. These flues were found to be so securely covered with heavy timbers nailed down that there was no possible chance for a current of air to be started upward through them. Out in the auditorium, the safeguards, even those that had been provided, were made useless. The lights in the theatre went out, either the wires being burned out near the switchboard, or the globes bursting with the intense heat of the sweeping flames. Besides this, there were no lights or conspicuous signs before the exits to guide those attempting to escape, and many exits were concealed by heavy draperies falling over them. Crowning horror of all, most of exits were bolted, barred, and padlocked, and against them the frantic strugglers threw themselves in vain. Heavy gates of iron bars, four or five feet high, which folded up like an accordion, were located at landings of the stairways to keep occupants of the balcony from turning into the stairways leading to the dress circle. These gates were locked, and before them were found the heaps of those who had been crushed to death in the struggle to break them down. It was found on examination that they were no part of the building or stairway as turned over by the builders, and were not part of the plans of the building, but were put in place by the management after the stair-

ways were finished and accepted; no permit was obtained from the city building department to put the gates there.

MEASURES TAKEN TO PREVENT FUTURE DISASTERS

The intense sympathy and horror that was felt over all the world led to an adoption of precautions in theatres and public places of meeting by cities far and near. A fireproof expert, who previously to the fire had given his opinion of this very building, said that the Iroquois theatre, though reported to be the finest and safest in the country at the time of its building, was really a firetrap, built of the cheapest materials, with much veneer and inflammable material in the furnishings, and insufficient exits. Deep and terrible as was the sorrow of the people after the disaster, it benefited mankind by arousing a demand for safer fire equipment in public buildings, and more means of escape in case of panic or fire.

Among the precautions adopted very widely by managers were improved construction in the locating of flues above the stage, the placing of rear doors to prevent too strong a draft when they are opened, the protection of stage lights, proper material and rigging of a fireproof curtain, and the frequent lowering of this curtain in the intermissions of the performance to assure both audience and management of its being in order. All theatres and public places were supplied with two city firemen, to be paid by the directors of the place. Exits are plainly marked by lights kept burning throughout the performance; no standing room tickets are sold, and the aisles are kept unimpeded. Doors of exits swing outward and are not locked at any time during the performance. Besides theatres, other buildings were safeguarded, especially schools, where fire drills were instituted and fire escapes built, when lacking.

Twenty-nine years before, in the Chicago *Times* for February 13, 1875, a warning had been given the people of the city that a terrible calamity awaited them on account of the scant provision that the theatre managers made for safety in case of fire. The warning was in the form of a pretended report on such a disaster, giving details of a tragedy that was in many ways similar to that which occurred long afterwards. Although this was noticed and talked of at the time by the citizens, it had no permanent results in the better equipment of theatres. In a meeting after the Iroquois fire it was pointed out by a teacher in the public schools that the newspapers of November 2, 1903, reported that the city council had listened to a complaint that the theatres were violating the laws. This report was referred to a committee, which was the last heard of it. A few days later Mayor Harrison had made a statement, challenging criticism, and insisting that the complaints were groundless. From all too many facts of this kind, the heartsick mourners learned the cruel lesson.

THE ARMOUR INSTITUTE

The doors of the Armour Institute were opened for instruction in September, 1893, and it at once entered upon a career of great prosperity and usefulness. The institution owed its origin to the munificence of Philip D. Armour who built and endowed it with ample means and placed Dr. F. W. Gunsaulus in charge of it.

"The institution is founded," says the *Circular of Information*, "for the purpose

MAIN BUILDING OF ARMOUR INSTITUTE

LEWIS INSTITUTE, MADISON AND ROBEY STREETS

of giving to young men and women the opportunity of securing a liberal education. It is hoped that its benefits may reach all classes. It is not intended for the poor or the rich, as sections of society, but for any and all who are earnestly seeking practical education. Its aim is broadly philanthropic. Profoundly realizing the importance of self-reliance as a factor in the development of character, the founder has conditioned his benefactions in such a way as to emphasize both their value and the student's self respect. Armour Institute is not a free school; but its charges for instruction are in harmony with the spirit which animates alike the Founder, the Trustees, and the Faculty; namely, the desire to help those who wish to help themselves."

The home of the Armour Institute is a fine fireproof building, situated at the corner of Armour avenue and Thirty-third street. The building is five stories in height, and is "furnished with every convenience that health, comfort, and the requirements of such an enterprise could dictate."

For the year 1908-09 the number of students in the College of Engineering, the principal department of the Institute, was 598; students in the Academy, 208; students in the evening classes, 615; and students in summer courses, 225; making a total (after deducting 36 names counted twice) of 1,610. Out of the 598 students in the College of Engineering, 416 are from Illinois, 349 of whom are from the City of Chicago. The other states of the Union send 160, and foreign countries 22 students. A large faculty of professors and instructors is employed.

The scope of the instruction furnished at the Armour Institute is preponderantly in the line of practical affairs; engineering in all branches, architecture, mathematics, physics, economics, together with a working knowledge of the modern languages. The aim of the instruction in the latter is "chiefly to reach the greatest practical results, which are thought to be attained when the language studied has become an effective aid to the continued acquisition of knowledge."

During the twelve years in which classes have been graduated from the Institute there is shown a total, at the end of the year 1910, of five hundred and seventy-nine graduates. The institution still remains under the efficient guidance and direction of Dr. Frank W. Gunsaulus.

THE CHICAGO BOARD OF TRADE

The first steps toward the organization of the Chicago Board of Trade were taken on the 13th of March, 1848. The call issued for a meeting of the business men of the city for the formation of a Board of Trade was signed by the following firms and individuals: Wadsworth, Dyer & Chapin; George Steele; I. Burch & Co.; Gurnee, Hayden & Co.; H. H. Magie & Co.; Neff & Church; John H. Kinzie; Norton, Walker & Co.; DeWolf & Co.; Charles Walker; Thomas Hale; Thomas Richmond; and Raymond, Gibbs & Co.

The meeting was held, a constitution was adopted and a committee appointed to prepare by-laws. A second meeting was held early in the following April, the report of the committee was adopted, and a general invitation was extended to the merchants of the city to meet daily in rooms engaged for the purpose. The objects of the Association thus formed were stated to be: "To maintain a Commercial Exchange; to promote uniformity in the customs and usages of merchants;

to inculcate the principles of justice and equity in trade; to facilitate the speedy adjustment of business disputes; to acquire and to disseminate valuable and economic information; and generally to secure to its members the benefit of cooperation in the furtherance of their legitimate pursuits."

"After an experience of more than half a century," says Secretary George F. Stone in a recent publication, "it is impossible to change this excellent declaration of principles without marring it." In fact this terse statement of the objects in view, made when the Chicago Board of Trade was formed, has always been regarded with special pride by Chicago business men as striking the key note of their commercial dealings, and of itself goes far to account for the unexampled prosperity and fame to which this widely known body has attained. The first president of the board was Thomas Dyer, with two vice-presidents, Charles Walker and John P. Chapin. At that time Chicago had a population of about twenty thousand. For many years the Board had its abode in rented quarters, but outgrowing these an exchange building was erected at the southeast corner of La Salle and Washington streets in 1865, only to be destroyed by the great fire six years later. In 1872, it was rebuilt and the Board continued to use it until 1885, when the present building was completed and occupied.

EVENTS IN THE HISTORY OF THE BOARD

In the early fifties Chicago passed St. Louis in the contest for superiority as a grain market. The receipts at St. Louis in 1853 were 5,081,468 bushels; in Chicago the receipts were 6,473,089 bushels of grain of all kinds. Colbert tells us that although the commerce of the city took such rapid strides, the Board of Trade, since that time the great channel through which the grain business of the city is transacted, "was little better than a figure head during the whole of this period. In 1853, the secretary was instructed to provide a daily set-out of crackers, cheese, and ale, as an inducement to the members to attend." The members preferred to transact their business direct with their customers in their own places of business.

Colbert further remarks: We find the Board very useful, however, in another capacity. It was great on resolutions. In 1853, it advocated the establishment of a monster bank, with a capital of five millions of dollars, to accommodate the trade of Chicago. In 1854, it took action on the improvement of the Illinois river, the dredging out of the harbor, building additional piers, erecting a lighthouse (built in 1855), and instituted a most important reform in the selling of grain by weight, instead of by the half bushel measure, as formerly. In 1855, action was taken in reference to the Georgian Bay Canal, and the reciprocity treaty with Canada. * * * In 1856 the Board provided standards for the inspection of grain and lumber into different grades, and had increased in membership so much that it was found necessary to rent rooms on the corner of South Water and La Salle streets.

"The year 1856," says Colbert, "was memorable as the one in which the 'Dean Richmond,' a vessel of 387 tons burden, arrived at Liverpool, direct from Chicago." Her cargo consisted of wheat which was discharged into the warehouses at Liverpool. Great anticipations were built upon the successful completion of this voyage. Bross says in his review of that year that other vessels would follow in the

track of the "Dean Richmond;" and "in the judgment of those who have most carefully studied this subject, a very few years will render the departure of vessels for the grain-consuming countries of Europe so common as scarcely to excite remark."

WAR RECORD OF THE BOARD

Some of the activities of the Chicago Board of Trade during the period of the Civil war are worthy of special notice. In 1861, the Board occupied the second floor of a building on the north side of South Water street just east of Dearborn. Soon after Fort Sumter was fired upon, April 12, 1861, the Board passed a resolution ordering that an American flag be purchased and that it should be hung on the walls of the rooms of the Board "as an emblem of our devotion to the glorious stars and stripes." Subscriptions of money were called for by the Union Defense committee created at a mass meeting of citizens, and when the request was known "on 'change," some five thousand dollars were obtained from the members. A member moved that the Board subscribe five hundred dollars to be paid from the treasury. "A discussion arose," says Andreas, "as to the legality of such subscription under the provisions of the charter, which was brought to a somewhat unexpected close by Charles H. Walker, Jr., who moved that the motion be amended so as to increase the subscription to five thousand dollars. The amendment was passed amid such uproarious applause as to completely annihilate all further objections as to the technical legality of the measure." This was the first of many subsequent gifts made by the Board during the four years the war lasted.

Within a week from the time that the first gun of the war had been fired a battery of the Chicago Light Artillery, commanded by Captain James P. Smith, a member of the Board, left Chicago for the South. Other members of this battery, afterwards known as Battery "A," who were also members of the Board of Trade, were Edward Tobey and John W. Rumsey. Another battery was soon afterwards formed with Ezra Taylor in command, which became known as Battery "B," otherwise "Taylor's Battery."

Whenever a Union victory was announced the Board of Trade welcomed the news enthusiastically. When Fort Donelson was captured in February, 1862, there was no further business done "on 'change" after the announcement had been made about noon that day. "The whole Board," says Andreas, "was resolved into a war meeting, and the doors thrown open to every rejoicing patriot who could crowd into the hall. The Board was called to order for business—war business only. It is unnecessary to portray the scene of uproarious confusion amidst which it managed that day to do its patriotic and efficient work."

A resolution was adopted stating that "this Board hears, with pride and heartfelt thanks, the glorious news of the success of our troops in the capture of the rebel stronghold, Fort Donelson: that we tender the thanks of this Board, also of all loyal citizens of our city, to the commanding officers and their commands, for their triumphant efforts to plant the stars and stripes over the same, and that we do particularly thank our gallant battery, Company "B," Chicago Light Artillery, for their daring and successful courage."

PRISONERS BROUGHT TO CAMP DOUGLAS

Many thousands of the prisoners captured at Fort Donelson having been brought to Camp Douglas to be guarded and cared for until they could be exchanged were looked upon by a certain set of persons who were in sympathy with the Southern cause with so great a degree of friendliness and interest that the loyal people naturally felt some resentment, in the state of feeling then existing, when they perceived the attentions bestowed upon them. Among the Confederate officers were several from Southern cities who, previous to the war, had business relations with Chicago business men, and some were well known in social circles. "Instead of being treated with the proper spirit which their recreancy would seem to merit from all loyal people," says Andreas, "these officers were being cordially received, hospitably entertained, and otherwise lionized by some of their former friends." When it became known among the loyal citizens there was much indignation felt, especially when it was remembered that many a gallant father, son or brother was absent in the field trying to subdue the enemies of their country, some indeed who would return no more.

The indignation of the members of the Board culminated in a set of resolutions offered at one of the Board sessions. In these it was stated that while it was our duty as citizens to see that the prisoners were well fed and cared for, it was also a duty we owed to ourselves as well as to our Government that they "should receive such attention at our hands as humanity alone would dictate;" and that "we recommend to the citizens of Chicago to abstain from offering to any of the prisoners now here, or who may hereafter arrive," "polite and marked attentions," exalting them into heroes, when, so long as war existed, they were to be regarded as enemies. It was added that "we believe many of the privates among our prisoners are honest and true men," who had been deceived by their leaders.

The strong Union principles of leading Chicago business men were thus avowed and proclaimed, and throughout the war and on all occasions the Chicago Board of Trade, the most influential commercial body of the city, efficiently aided the Union cause with men and money whenever the need arose. At a later period of the war the Board adopted a resolution which ran as follows: "Resolved, that the Board of Directors be requested to refuse admission to the membership of this Board of any citizen of the United States against whom suspicions of disloyalty to the General Government are known to exist, until such suspicions are proved, to their satisfaction, to be unfounded."

CORN THE GREATEST PRODUCT

As one of the most important products of the Northwest, corn occupies the first place in a mention of the great sources of wealth which have contributed so materially to the prosperity of the people of Chicago. The statistics are fully given in numerous publications, in which many useful comparisons are made. For those who find pleasure and profit in statistics there is the "City Manual," a publication of the Chicago Bureau of Statistics, which is a compendium of useful facts and comparisons, and of information on many subjects. The City Manual is published annually, and is prepared by Colonel Francis A. Eastman, City Statistician. The Chicago Board of Trade also issues annually a report containing a mass of

information arranged in tabular form convenient for seekers of facts. These two publications are mentioned, but a host of others are likewise available.

While statistics are important in a work of this character and are here frequently used to illustrate a subject requiring information in that form, they are often tiresome and repellant to the average reader. It has been said that statistics are the dry bones of history, but nevertheless they are indespensable in their place.

The immense production of corn, and its far-reaching influence upon our well-being and prosperity, has aroused the imaginations of thoughtful men on many occasions.

One such occasion was in 1892. On the ninth of September of that year a harvest dinner was given by the Fellowship Club, when there was present a number of distinguished guests. Among them was the Governor of the State, Hon. Richard J. Oglesby, who in the course of the evening was called upon for an address. This address has since become something of a local classic and has been reprinted, once in the *Record-Herald* for October 8th, 1907, and again by a well known stationery house, Messrs. Marshall, Jackson & Co., in the form of a leaflet for distribution among their friends. The delivery of the address was entirely extemporaneous, the speaker taking corn as his theme which he apostrophized in many glowing sentences.

One of the gentlemen present was Mr. Volney W. Foster, a member of the club, who some six years later recalled the language of the address and reduced it to writing. Notwithstanding the severe strain upon his memory after so long an interval, the reproduction was considered by those who were present and heard the address, as almost identical with the original delivery. Those who knew Mr. Foster, and the wonderful feats of memory of which he was capable can well understand this, for Mr. Foster was himself one of the most eloquent speakers on numerous occasions, and thoroughly imbibed the spirit as well as the words of the address, some passages of which are given in the following paragraphs.

GOVERNOR OGLESBY'S ADDRESS ON CORN

"Look on its ripening waving fields! See how it wears a crown, prouder than monarch ever wore, sometimes jauntily and sometimes, after the storm, the dignified survivors of the tempest seem to view a field of slaughter, and to pity a fallen foe. And see the pendent caskets of the corn field filled with the wine of life, and see the silken fringes that set a form for fashion and for art!" The speaker then in imagination beholds the scudding clouds throwing their shadows upon the waving fields as "the gentle winds make heavenly harmonies on a thousand harps that hang upon the borders and middle of the field of ripening corn; until my heart seems to beat responsive to the rising and falling of the melodious refrain. The melancholy clouds sometimes make shadows on the field and hide its aureate wealth, and now they move, and slowly into sight there comes the glow of promise for an industrious land.

"Glorious corn, that more than all its sisters of the field wears tropic garments! Nor on the shores of Nilus or of Ind does Nature dress her forms more splendidly! My God, to live again that time when for me half the world was good, and the other half unknown! And now again, the corn, that in its kernel holds the strength

that, in the body of the man refreshed, shall subdue the forest and compel response from every stubborn field. Aye, the corn, the royal corn, within whose yellow heart there is of health and strength for all the nations. The corn triumphant, that with the aid of man hath made victorious procession across the tufted plain and laid foundation for the social excellence that is and is to be. This glorious plant, transmitted by the alchemy of God, sustains the warrior in battle, the poet in song, and strengthens everywhere the thousand arms that work the purposes of life. Oh, that I had the voice of song or skill to translate into tones the harmonies, the symphonies, the oratorios that roll across my soul, when standing sometimes by day and sometimes by night upon the borders of this verdant sea, I note a world of promise; and then before half the year is gone I view its full fruition, and see its heaped-up gold awaiting the need of man. Majestic, fruitful, wondrous plant! Thou greatest among the manifestations of the wisdom and love of God, that may be seen in all the fields or upon the hillsides or in the valley."

THE NATIONAL CORN EXPOSITION IN 1907

When the National Corn Exposition was held in Chicago in October, 1907, Mr. H. N. Higinbotham made an address at the opening on the same inspiring subject. Mr. Higinbotham's broad views and power of statement, so well shown on many occasions, are manifested in his address, from which we will quote some passages. "Those of us who were instrumental in inaugurating the movement that resulted in this Exposition," he said, "have been inspired by the desire to inculcate a larger and more general appreciation of corn, both as to its beauty and its great value." "What a wonderful and inspiring sight are the vast fields of corn ripening for the use of man! Stored within each grain is not only wealth for the myriad sons of toil, but the germ of future fields that are to come as surely as the seasons are to return in their own good time." "Like Tennyson's little flower 'in the crannied wall,' if we knew the explanation of this wonderful process, we would know what God and Man are, for the mystery of the universe is as surely wrapped up in a single grain of corn, as it is in the soul of man, or in the infinite expanse of the dome of heaven above us; and, like man, each grain has stored within it the germ of immortality."

A writer in the Atlantic Monthly, evidently a New Englander, remarks upon the position occupied by Illinois in regard to the transportation of products between the east and west. "In the wide area between the Atlantic Ocean and the Rocky Mountains," he says, "she stands at the middle point. The raw and manufactured products of the earth—north, south, east, and west—must, in our seething traffic, surge largely through her territory; she is, and from geographical necessity must always be, the chief sluiceway for this ceaseless flood of things. More than this, the multitudinous sea of restless Americans—old ones and new ones—pours into and through her avenues of travel. Unlike New York and Boston, mere filters through which the immigrant stream rushes or trickles, leaving behind the scum and dregs of alien peoples, Illinois is a smelting-pot in which the stronger and more active foreigners are fused with one another and with the older stock into real American citizenship."

THE ILLINOIS TUNNEL COMPANY

The system of tunnels constructed by the Illinois Tunnel Company were designed exclusively for the handling of freight, the transportation of passengers not entering into the plans of the builders. When the tunnel was projected the principle adopted was that the streets were for the people and the tunnels beneath the streets were for the transportation of freight. "Let the people have the sunlight and the air and the unrestricted space on the street levels," said a writer on the subject; "let them avoid climbing up and down the long flights of stairs; let them go where they please on the surface of the ground, without its being necessary to keep dodging heavily loaded trucks, coal wagons and ash carts. And make all this possible by taking all freight, coal and ashes down into the tunnels, twenty-five feet below the surface, where they can be handled quickly and easily, at the same time avoiding the crowding and the littering of the streets that would otherwise be inevitable."

It was upon this general idea that the company spent many millions of dollars to prove that this was a practical solution of handling the street traffic of a great city. In the light of the experience of other cities this view of the benefits to flow from underground transportation of freight does not meet with general acceptance, and the tendency of the present day is to develop the idea of passenger traffic for the underground passageways. Construction of the system of tunnels which we are about to describe began in 1901, under the charge of George W. Jackson, the well known engineer and tunnel builder of Chicago. So unobstrusively was the work begun and carried on that few people noticed the progress of operations.

A descriptive article, written by Mr. Henry M. Hyde, appeared in the "Technical World" magazine, in July, 1904. There was practically no public knowledge of the work while it was under construction, he said. "Fully a dozen miles of the subway were entirely completed before one out of ten citizens of the city knew that a tunnel system was in process of construction," wrote Hyde. "For years, thousands of people saw once or twice a day the little elevator houses standing at such prominent street corners as Lake and State streets, without having any idea of what they meant or for what purpose they were used. But it was through these little houses that all the dirt taken out of the tunnels was raised and loaded into wagons, the work being done after dark, so as not to interfere with the regular traffic."

BEGINNING OF THE WORK

In February, 1899, the Chicago City Council passed an ordinance "granting the use of the streets to a telephone company to be operated in opposition to the old Bell Company. It was under this ordinance that the tunnels were built. . . . It was not until July, 1903, that the company [which had already begun the work of construction], having reorganized under the name of the Illinois Tunnel Company, secured an amended ordinance from the city giving it permission to install an electric railroad in its tunnels, for the transportation of freight and commodities of all kinds."

Its plan of operation was in general to "serve the purpose of carrying coal to down-town office and business buildings, and removing the resulting ashes and other debris," to remove the "enormous amount of waste paper and other rubbish

originating daily in the big down-town buildings;" and the "hauling of freight to and from freight depots and business houses." Chicago, it was said, was one of the greatest railroad centers in the world. "No less than twenty-five trunk lines of railroad radiate from it. The aggregate annual volume of freight tonnage is enormous, almost beyond computation, and it is all received and distributed from six freight depots, which are located within a territory only one and a half miles square."

The tunnels themselves, of which there are, in 1911, some sixty-three miles completed and in use, are nowhere visible from the surface, the only approach to them being through the shafts communicating with them in the buildings where connections have been established. A cross section of the tunnels at a given point would present the form of a horse shoe, with walls, roofs and bottoms of solid concrete, the bottoms placed at an average depth of from forty-two to forty-five feet beneath the surface. The usual dimensions of the tunnels are six and a half feet in width and seven and a half feet in height. There were a few short stretches of the tunnels constructed of larger dimensions than this, but it was found unnecessary in the general plans of the system and the larger type of construction was wholly discarded, and there is actually but little of it in existence.

Electric transmission of power, by means of the familiar trolley wire, is employed entirely, the motors, or locomotives, being of low and compact construction. The cars are of various patterns,—flat or "stake" cars, box or "shield" cars, excavation cars, coal cars, and a near approach to passenger cars called "observation" cars. All these cars, however, are of uniform size, namely, ten and one-half feet in length with a width of four feet. The track is a narrow gauge, with rails two feet apart. The weight of the rails used is fifty-six pounds to the yard.

It was decided, after consultation with the city engineer when the tunnels were projected, that the roof of no tunnel should be allowed to approach the street surface nearer than twenty-four and a half feet. "In this way, in the opinion of the city officials, sufficient space was left for the construction of a subway for the passage of street cars, if, in the future, such should become necessary."

EXCAVATION OF THE TUNNELS

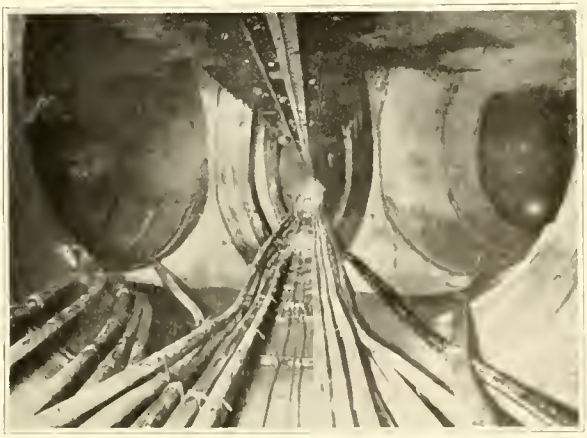
In September, 1901, "the first gang of miners were started at a point in the alley between Madison and Monroe streets, immediately west of La Salle street. As rapidly as possible, thereafter, seven other shafts were started, the basements of buildings located at the points selected being leased for the purpose." A total of about eight hundred and fifty men, including miners, cement workers and others, were employed in the work of construction. "For the purpose of expeditiously getting the excavated dirt to the elevator houses, where it was lifted to the street level, nine hundred little tram cars were used." These tram cars were about four feet square, they could be lifted with their loads and dumped into the waiting wagons, and so perfect were the arrangements that at the end of ten and a half months' work no less than twelve miles of tunnel were completed.

The primary purpose of the tunnel, as it was often reiterated, was to relieve the congestion of the streets owing to the heavy traffic in transporting bulky articles of freight, coal and other material. As soon as the work had advanced far enough to permit of the operation of trains within the tunnel, connections were

SOUTH WATER STREET SCENE

From The Book of the Board of Trade 1910

BOARD OF TRADE BUILDING



CABLE SYSTEM OF THE ILLINOIS TUNNEL COMPANY

Looking north on Fifth avenue, corner of Monroe street

made with many business houses, office buildings, and railroad depots, and the plans of the projectors were put to the actual test. There is no doubt but that the streets were relieved of an immense number of heavily laden trucks, but the natural increase in trade has shown no perceptible diminution to the casual observer.

There have been spent on the work so far (July, 1911) about fifty millions of dollars.

ROUTES OF THE TUNNELS

By consulting the map of the tunnel routes shown on another page it will be seen that the tunnels of the Illinois Tunnel Company now underlie nearly every street in the downtown portion of the city. Tunnels run beneath the river at twelve different points connecting the North and West Divisions of the city with the South Division. Turn-outs or by-passes are constructed at all buildings and depots where the lines have established connections.

While the enterprise is still "a freight carrying proposition," the tunnels serve the purpose of conduits for the telephone wires and cables of the "Telephone Department of the Illinois Tunnel Company." This department is absolutely independent of any other telephone company, and already has upwards of twenty thousand telephones in use throughout the city.

SOME INTERESTING DETAILS

Some details of description, gathered from observation and interviews with officials, are added, as follows: The sixty or more miles of tunnels are, at this time (1911), in daily use transporting freight and material between the various wholesale and retail houses on the one hand and the railway depots and dumping places on the other. The office buildings and mercantile establishments connected with the tunnel system are provided with shafts, through which a car with its contents is raised or lowered as required. As soon as its load is taken or discharged the car is replaced on its track below.

The turn-outs or "by-passes" connecting the buildings with the line are usually placed within the area directly beneath the sidewalk, the main line of course running along beneath the middle of the street. A by-pass is of the same dimensions and built in the same manner as the tunnel itself. In use, a car intended for a particular by-pass is detached from a passing train, and at the center of the by-pass is run upon an elevator which hoists it to the receiving floor,—usually the basement of the building thus connected, but sometimes the main floor. At the upper level the car is rolled off the elevator and its journey is extended to any point required. Basements thus used are often a gridiron of tracks and switches, where a number of these cars may be seen standing ready or waiting to be used.

There is a contingency to be guarded against, namely the danger from a flood of water descending the shaft into the turnout or by-pass when a fire might happen to be raging in the connected building. If this should happen the fire department would naturally play heavy streams of water into the building, and this water would seek the shaft into the by-pass for a means of escape; and, as a consequence, the floor of the tunnel in that vicinity would be deluged temporarily beyond the usual capacity of the pumps to raise it into the sewers, which, of course, are considerably above the tunnel level. This contingency has been foreseen and at the

entrance of every by-pass a pair of heavy iron doors with water-tight fittings is placed, so that when a fire occurs in a connected building these doors may be closed and fastened. Thus a shaft may be filled with water without the occurrence of any perceptible leakage into the tunnel.

The Tunnel Company, with its complicated system of tunnels, has also found it necessary to protect itself with a system of signals which insures against the danger of collisions in the regular course of operating trains. The track system, as can readily be seen upon the map, presents a net-work of tracks, loops and crossings, interwoven like a spider's web. The system of signals adopted is a thoroughly efficient and "fool proof" device, and, since 1908, when it went into operation, there has not been an accident involving collision or delay.

Eight to ten cars usually constitute a train in the ordinary course of business on the line. The speed maintained in operating loaded trains is about eight miles per hour. But one line of track is placed in a tunnel, the routing of trains being so arranged as to pass in one direction only, the trains moving in an opposite direction making use of another tunnel. No tunnels run under buildings, except the by-passes which for a short distance in some cases pass within the building line. When by-passes are constructed within the limits of a building, the construction is carried on in an air-lock, so as not to endanger piers; and when the work is completed the form of the interior of the by-pass, being elliptical and solidly surrounded with concrete, is as firm in its resistance to pressure as the earth around it.

The motorman constitutes the entire train crew. It takes a man about three weeks to learn the various routes, and a new man is on probation for about six months. The movement of the trains ventilates the tunnels sufficiently through the shaft connections with the upper air. Indeed, the current of air from the tunnels is of very material assistance in maintaining a draft for the furnaces of boilers in some of the office buildings having basement connections with the tunnel network. The drainage of the tunnels is pumped by sixty electrically operated pumps up to the sewers which are at a higher level.

At the river crossings, of which there are twelve, the bottoms of the tunnels, usually from forty-two to forty-five feet below the surface, drop to a depth of sixty-five feet. Three per cent grades are used on the approaches. The temperature in the tunnels is about fifty-five degrees the year around.

It is estimated that the excavated material removed by the cars of the tunnels, and dumped into Grant Park where filling was required, has amounted to a million and a half cubic yards.

There are, at the present time, some ninety-two connections of the tunnels with business houses, office buildings, railroad freight depots, and other points. The Tunnel Company retains the ownership of each of the connections at these points. The names of the streets are lettered on the walls of the tunnels at all the street intersections, exactly corresponding to the streets overhead.

ASPECTS OF THE INTERIOR

Standing in one of the tunnels and looking either way along its vaulted interior as far as the eye can penetrate, the line of electric lights and signals extending into the distance, the visitor realizes the total isolation from the life and ac-

tivities of the street but a few feet overhead, the roar deadened into perfect silence by the intervening layers of earth. Only the rumble of the passing train occasionally interrupts this silence. In the outer air above are passing crowds, cars, and vehicles, and there may be storms, heat or cold, but in these subterranean passages, one is as "far from the maddening crowd" as if he were immured in the dungeon of a castle. The catacombs of Rome and Paris are indeed roomier and perhaps more extensive than these underground passages, but they no longer have any human use if, indeed, they ever had; but here is found an efficient and important thoroughfare, relieving the overburdened streets above and contributing to the welfare and convenience of the people.

CHAPTER LIV

MUSIC AND DRAMA

MUSIC IN THE THIRTIES—POPULARITY OF CONCERTS AND SHOWS—CIRCUS ARRIVES—EARLY THEATRICAL PERFORMANCES—JOSEPH JEFFERSON THE ELDER—A FREQUENT VISITOR TO CHICAGO—JOSEPH JEFFERSON THE YOUNGER—MUSICAL SOCIETIES—FIRST THEATRE—RICE'S THEATRE—J. H. MCVICKER'S FIRST APPEARANCE—MUSICAL ORGANIZATIONS—MCVICKER'S THEATRE BUILT IN 1857—BRYAN HALL—WOOD'S MUSEUM—SMITH & NIXON'S HALL—ADELINA PATTI—THE PATTI FAMILY—OPERA SEASON OF 1858—BAND CONCERTS—SONGS OF THE CIVIL WAR—OPERA IN THE SIXTIES—PAREPA-ROSA—CROSBY'S OPERA HOUSE—THEATRES AFTER THE FIRE—PAULINE LUCCA—FAMOUS PRIMA DONNAS—EMMA ARBOTT—MUSICAL FESTIVALS—MATERNA—APOLLO CLUB—GEORGE F. ROOT—CENTRAL MUSIC HALL—WELL KNOWN IMPRESARIOS—ORCHESTRA LEADERS—EARLY CAREER OF THEODORE THOMAS—THE AUDITORIUM—PERMANENT HALL FOR THE ORCHESTRA.

MUSIC AND DRAMA

THERE is a man in Chicago who more than any other person now living there, is competent to tell the musical history of the city, as he has watched its development for over fifty years. This is Mr. George P. Upton, who came to Chicago in 1854, recently graduated from Brown University, a youthful amateur in music, though not himself a performer. Immediately after his arrival he began work on the old Chicago *Journal,* and for fifty years following held a variety of newspaper positions including those of reporter, city editor, war correspondent, editorial writer and dramatic and musical critic. From 1859 until his semi-retirement in 1905 he was on the staff of the *Tribune,* and has been a stockholder for more than thirty years. Mr. Upton has come to be best known through his musical criticisms, and through the handbooks on music which he has published from time to time.

Mr. Upton has been intimately associated with those who have come to the city to offer their musical inducements, since the time when Adelina Patti, as a little girl, sang in the early fifties, before a gathering in the dining room of the Tremont House; and he has been one of the increasing number of appreciative ones who have watched and welcomed the growth of a music-loving public in Chicago. Upon his recollections [1] is based the following sketch:

BEGINNINGS OF MUSIC IN CHICAGO

As far back as 1804 there was in Chicago what is known to us as music, for John Kinzie had brought a violin with him when he came here, and used to play

[1] Musical Memories, by George P. Upton.

on it for his family. When Mark Beaubien started the Sauganash hotel in 1833, there was music for every comer, as the gay-hearted host played a fiddle while his guests sang and danced; there was a piano there, too, the first one brought to Chicago, and an occasional performer joined in with the violin. This was in the days when there were still countless Indians about the little settlement, and when the town itself was a crude village with ill-defined streets.

In the early thirties all denominations worshipped in the same building, the Presbyterian church, at the southwest corner of Clark and Lake streets, and Sergeant Burtiss of Fort Dearborn used to lead the singing for the congregation. In 1834 a public entertainment was given, when an admission fee was for the first time charged. In those days a concert, a sleight-of-hand performance, or a sword-swallowing exhibition were indifferently called a show and welcomed with undiscriminating joy by the frontier town. An irreverent and incongruous jostling of circus news with musical announcements, of dramatic with aerobatic events, is inevitable in an account of the amusements of early Chicago. The eager welcome of any and all forms of entertainment that were offered is indicative not so much of a catholic taste as of a hungering for diversion and metropolitan novelty. The announcements of entertainments were masterpieces of hyberbole, sentimentalism and alluring description, in which the elegance of the performance was implied by a free use of the French language on the show bill.

The first showman to come to Chicago was Mr. Bowers, "professeur de tours amusants," who established himself at the Mansion House and advertised himself as fire king, ventriloquist and expert in legerdemain. In this same year, 1834, several shows were given, among them a concert by a Mr. Blisse. The first music school was opened in July 9, 1834, by Miss Wythe. The next one to open a music school was a Mr. Samuel Lewis, who also tuned what pianos there were then in Chicago. A noteworthy musical event was the organizing of the Old Settlers' Harmonic Society, which gave its first concert December 11, 1834, in the Presbyterian church. In January, 1836, this society gave its second concert, after which no more is heard of it. St. James' Episcopal church had the first regular quartette choir, which was organized in 1836, two years after the church was founded. Here, too, the first organ in Chicago was installed after building the church.

THE FIRST CIRCUS

Then came the time, in the same year, when Chicago had its first circus. "The Boston Grand Equestrian Arena" arrived, the tent was spread near the lake on a lot on Madison street, and all Chicago for the first time saw and smelled and heard the delights of a show in a great tent. So great was its success that the proprietor, Oscar Stone, himself a famous equestrian performer,[2] returned later in the same year with the additional attraction of "two anacondas expressly purchased for this occasion," which were the first animals exhibited in Chicago by professional showmen.

THE THEATRE

Those pioneers who came to Chicago from New England, and there were many such, had brought with them the rigid principles and the staid, methodical habits

[2] Andreas, I, 473.

of their early homes. The latter they were often forced to give up, in the exigencies and surprises of western life; but their principles stood the strain better. Thus it was that when, in 1837, actors first came to Chicago they found the license fee fixed so high that they would not pay it. Later in that year Isherwood and McKenzie bought a license, though protesting at its high price, and gave performances in the dining room of the Sauganash tavern, recently left tenantless. The large empty hall was fitted up into a crude sort of theatre, and bills were printed and distributed through the town. The first play they gave, and the first one given in Chicago was "The Stranger." The success of these performances was so great that the managers opened a regular theatre, which at first they called "The Rialto," and later "The Chicago Theatre." To be sure, it was on an upper floor of a wooden building, but nothing was lacking in its appointments. The building was on the west side of Dearborn street, between Lake and South Water streets.

JOSEPH JEFFERSON, THE ELDER

To this theatre came a troupe which included Joseph Jefferson, the elder, his wife, daughter, and the nine-year old boy, Joseph, who was to become the most famous of all that talented family. In his autobiography the younger Joseph describes that theatre, carrying over for us the boy's enthusiasm at the sight of the new play house. Chicago, as he saw it on his first visit, he describes as a "busy little town, busy even then, people hurrying to and fro, frame buildings going up, board sidewalks going down, new hotels, new churches, new theatres, everything new." And later, "Now for the new theatre, newly painted canvas, tack-hammer at work on stuffed seats in the dress-circle, planing boards in the pit, new drop curtain let down for inspection, 'beautiful!'—a medallion of Shakespeare, suffering from a severe pain in his stomach over the center, with 'One touch of nature makes the whole world kin' written under him, and a large, painted, brick-red drapery looped up by Justice, with sword and scales, showing an arena with a large number of gladiators hacking away at one another in the distance to a delighted Roman public; though what Justice had to do with keeping these gladiators on exhibition was never clearly explained by the artist. There were two private boxes with little white-and-gold balustrades and turkey-red curtains, over one box a portrait of Beethoven and over the other a portrait of Handel—upon unfriendly terms, glaring at each other. The dome was pale blue, with pink-and-white clouds, on which reposed four ungraceful ballet girls representing the seasons, and apparently dropping flowers, snow, and grapes into the pit. Over each season there floated four fat little cherubim 'in various stages of spinal curvature.' . . . The greenroom was a perfect gem, with a three-foot wavy mirror and cushioned seats around the wall—traps under the stage so convenient that Ophelia could walk from her grave to her dressing-room with perfect ease."

In this theatre Joseph Jefferson first appeared in Chicago, singing ballads and comic songs, and adding somewhat to his store of spending money by delighting his hearers into throwing coins onto the stage, a thing that was often done by the audience when they were highly pleased by a song or a dance.

Prejudice against the theatre continued to be strong, and public as well as private criticism was often severe. It was not recognized as having educational value, but as a "nursery of crime," and an "alarming assault on the stronghold

of youthful rectitude." The audiences were made up almost entirely of men, and the presence of policemen was necessary to keep order, for frequent and violent quarrels arose in the audience. The managers tried to tempt the ladies into the theatre, and finally Mr. Jefferson, senior, succeeded in doing so by addressing to them a card saying that in Springfield, Illinois, (where the troupe had recently been performing during a session of the legislature) the ladies attended the theatre, and that in New York it was quite the fashion for the ladies to go to the play. Thus by diplomacy the barriers were broken down. One most gratifying result of this was the good order which thenceforth prevailed in the audiences; another was the demand for improvement in the manner of acting.

When there was but one troupe at a time in the city to occupy the attention of the theatre going people, that one troupe must furnish a satisfying variety to its patrons. Instead of the prolonged engagements of the present day, in which the same play is presented night after night, each time to a new audience, there was a change of bill every night, and often two plays were given during the same evening.

The company of McKenzie and Jefferson, successors to Isherwood and McKenzie, left the city in 1839, and for some years the dramatic art was neglected in Chicago. But by 1840 other entertainments were numerous, given by lecturers, magicians and singers; art exhibitions were held; P. T. Barnum came, with the first minstrel troupe, and William H. Russell, famous for his descriptive songs and ballads, appeared. In 1841 there was a presidential campaign celebration, when there were illuminations and a street band of sixteen pieces in the town, and a barbecue on the prairie, in honor of William Henry Harrison, "Old Tippecanoe."

A second theatre was open in 1842 in the Chapin building, at the southeast corner of Wells and Randolph streets, managed by J. S. Hastings. In spite of the scruples harbored against the theatre, the managers succeeded for a brief time. The first museum in Chicago was opened in 1844 in the Commercial building; it was established in order that "the wonders of nature, the beauties of art, and the relics of antiquity might be exhibited to the public."

MUSICAL SOCIETIES FORMED

The Chicago Musical Society was organized the same year, having for conductor C. A. Collier, who had been one of the directors of the Old Settlers' Harmonic Society, mentioned before. This organization endured but a short time. During the next few years several musical societies were started, of more or less permanency. Among these was the Mozart Society, founded in 1847 and directed by Frank Lumbard, who was in this year appointed vocal teacher in the public schools. In later years, particularly during the war, he and his brother Jules became locally very well known as singers and leaders of choruses. The men who did the most for music in Chicago during the forties were Frank Lumbard, George Davis, Samuel Johnston, singers, B. August Bode, a pianist and teacher, and Signor Martinez, a teacher of the violin and guitar, and an amazing performer on three instruments at once. His musical feats, though perhaps not artistic, were at least delightful to his audience.

PERMANENT THEATRES

Rice's theatre was opened on Randolph street in 1847 by John B. Rice, afterward mayor of the city. Until this time the theatrical accommodations of the city had been merely those provided by the managers of the traveling troupes as they visited the city. The "Rialto," called later the Chicago Theatre, was a part of a frame building fitted up by Isherwood and McKenzie and Joseph Jefferson, senior, and used by them on their visits to the city. Now, however, there came to Chicago a theatrical manager whose intention was to settle there, and who saw the advisability of providing for the rapidly growing place a permanent theatre building. The theatre built by Mr. Rice was finished in six weeks, and performances given in it at once. On the stage of Rice's theatre appeared such celebrated actors as J. H. McVicker, and Edwin Forrest in the roles of Othello, Hamlet, Macbeth and other heroes; Julia Dean as Lucretia Borgia; and Lucius Junius Booth in his impressive impersonations of Shylock, Richard III, and other Shakespearean characters. It was after one of Edwin Forrest's performances there that he made a curtain speech, in which he said "Wherever civilization has spread its humanizing influence, the Drama had been upheld by the wise and the good, and although from time to time it has been bitterly assailed by intolerance, bigotry and fanaticism—for it is much easier to condemn than to appreciate—and so scowling bigots still denounce the theatre, as they once denounced the inspired teaching of Galileo; yet it has triumphantly withstood their attacks, and will continue to do so, so long as there is taste and refinement in the world to appreciate the genius of Shakespeare, or so long as man is composed of those elements which the great bard of 'all time' has so truthfully depicted." [3]

J. H. McVicker, in his young days, when he appeared at Rice's theatre, was a singing and dancing comedian—the same man who later built the first McVicker's theatre on the site of the present McVicker's. Many a man in Chicago today can recall his familiar figure usually to be seen near the entrance to his theatre, except during the play; when the play was on, he was generally upon the stage, in one part or another; for in any kind of emergency he could be relied on, as he knew many parts. In the church yard scene of "Hamlet" he invariably took the gravedigger's part, and many a time has he been seen to toss up the earth and presently to come upon poor Yorick's skull, which he held invitingly up to Hamlet.

NOTABLE MUSICAL EVENTS

A music teacher that left an impression on Chicago, from long residence and great popularity, was Nathan Dye, generally called "Father Dye." He had come to Chicago in 1836 to start a music school, had found the outlook discouraging, and had gone to Milwaukee. In 1848 he returned, and for twenty years taught music here. He gave many children's concerts, to which "everybody" went. There are those living now who were his pupils and who remember the popularity of his concerts.

In 1848 the people of Chicago heard for the first time a great pianist, when Richard Hoffman gave a concert at the courthouse. The year 1850 marks the organization of the first Philharmonic society and the arrival of opera in Chicago.

[3] Andreas, I, 487.

Thus music is taking a dignified and recognized place in the city, a fact that was further attested by the formation of the first quartet, composed of Messrs. Davis, Dunham, Frank Lumbard, and Miss Mary Nowlin. Concerts were given by them and by the German Song Union, also founded that year. The Philharmonic Society was organized as an orchestra by Julius Dyhrenfurth, a German violinist, who had come to America in the thirties, had found concert touring in the new country a failure, returned to Germany in 1841, and finally left there on account of political unrest. In 1847 he came to Chicago, where he good-naturedly treated his friends to a tune now and then, and gave a concert. As concerts did not pay, Dyhrenfurth settled on a little farm at the western outskirts of the city, and began raising vegetables for the market. That was a time when many Germans were leaving the fatherland for political reasons, and no small number came to Chicago; there they were welcomed to the hospitality of the Dyhrenfurth home. There was much music there, as almost everyone who came could play some instrument; they began to practice together and to give a few concerts in the city, and the outcome of this was the formation of the Philharmonic Society.

The first opera season that Chicago ever enjoyed was that of 1850. It was of short duration, for Rice's theatre, where the opera was produced, was burned to the ground the second night of the engagement. "Sonnambula" was given, with Elise Brienti as Amina, Mr. Manvers as Elvino, and Mr. Giubetti as Count Rodolfo. The theatre at each performance was filled with townspeople, and there were even some local singers in the choruses, and the season started out well. During the second performance, cries of fire were heard in the street, flames were seen through the windows, and the theatre, a wooden building, quickly took fire. In an instant Manager Rice was standing before the audience and calmly directing their departure, thus preventing a panic. A second and much heralded opera troupe came from New York in 1853, and during their two weeks' stay presented "Sonnambula," "Norma" and "Lucia di Lammermoor."

The burning of the only completely equipped theatre in town temporarily arrested dramatic progress in the city, though within six months Mr. Rice had erected a second theatre built of brick, with cornices of galvanized iron. In the interim between the burning of the first building and the completion of the second, Tremont Hall was used for the few theatrical performances given in Chicago. A popular play that was first given throughout the country in the early fifties was "Uncle Tom's Cabin," which in Chicago was so successful that it ran for the unheard-of length of three weeks. From that time it was often given, arousing the same sentiments as did the book on which the play was based.

NEW THEATRES CONSTRUCTED

"November 10 [1855] the papers announced that North's National Amphitheatre was nearly finished. This building, which was situated on Monroe street between Clark and South Wells (now Fifth avenue), was a wooden structure, two stories in height, ninety feet front by two hundred and six feet in depth, and was built by Levi J. North and Harry Turner. The main entrance was eighteen feet wide, besides which were two stairways, each eight feet wide, leading to the boxes in the gallery. Its seating capacity was three thousand and sixty-two persons; it had a performing ring forty-two feet in diameter, and the building

was lighted by one hundred and twenty gas jets. In the rear were the accommodations for the company, also stabling quarters for an entire stud of horses." [4]

McVicker's theatre was built in 1857 on Madison street where the present McVicker's now stands, and in time became the rival of Rice's theatre. The popularity of John B. Rice and his charming wife, both of whom appeared frequently on the stage of their theatre, continued until they left the stage to devote their time to other things. Later Mr. Rice was twice mayor of Chicago, and was elected a representative to Congress, where he was serving his first term at the time of his death. It was only when his theatre lost him as manager that its prestige began to lessen, and the costly new McVicker's took from it its prosperity. McVicker's was the handsomest playhouse in the West, had cost $85,000, and was equipped with every convenience and comfort for actors and audience. Its acoustics were excellent, its stage property extensive, and its drop curtain, on which was represented the great railroad bridge connecting Rock Island with Davenport, was thought to be a beautiful piece of art. From its opening night until its destruction in the great fire, its stage was visited by such famous dramatic and musical artists as E. A. Sothern, the Richings, father and daughter, Gottschalk, Carlotta Patti, William Warren, J. H. Hackett, Lawrence P. Barrett, Joseph Jefferson, Mr. and Mrs. Charles Kean, Joseph K. Emmet, and Edwin Booth. Mary McVicker, the little daughter of J. H. McVicker, appeared on her father's stage in her tenth year, and so pleased were the audiences with her playing of little Eva, "the angel child," and other parts, as well as the charming quality of her singing voice, that she did much to help her father through the first difficult years of his undertaking in Chicago. At eighteen years of age she became the wife of Edwin Booth, whom she first met when she played Juliet to his Romeo. She did not again appear on the stage, but devoted herself to her husband and home. She died in 1881, only thirty-three years old.

BRYAN HALL

A large hall was built in 1860 by Thomas B. Bryan on Clark street, between Washington and Randolph streets, where the Grand Opera House now stands. It was dedicated with a concert given under the direction of Hans Balatka, who on this occasion demonstrated to the people of Chicago his ability as a conductor. Bryan Hall was much used during the sixties for concerts, as well as for fairs, balls and other social entertainments, and its owner was always generous in offering the use of it for public-spirited and benevolent purposes, or to advance the cause of art. The hall was bought in 1870 by Richard M. Hooley, the man who had become famous in this country and abroad for his minstrel shows. Hooley rebuilt the hall into an opera house, which was destroyed in the fire. The Hooley's theatre of later day was built in 1872 on Randolph street, between Clark and La Salle, on the site of the present Powers' theatre, its successor. Mr. Hooley, like Mr. McVicker, was usually visible in the lobby of his theatre, well known to a great number of the Chicago theatregoers of his day.

The famous old Wood's Museum was established in 1863 in some rooms on the north side of Randolph street east of Clark street. Its attractions included a

[4] Andreas, I, 494.

WOOD'S MUSEUM

Looking east on Randolph Street from Clark Street, before the fire

collection of natural history objects, a hall of paintings, a panorama of London, and occasional concerts held in the exhibition hall. Colonel Wood became the proprietor of the museum in 1864, and realizing the importance of dramatic performances to attract visitors, he increased its equipment by annexing to the rooms already used the building called Kingsbury hall, in the rear of the museum, and added a stock theatre company to the attractions of the place. During part of the history of the museum, when Frank E. Aiken was manager, it was known as Aiken's Museum, but the more familiar name was resumed when Colonel Wood became manager in June, 1871.

Uranus H. Crosby built his opera house in 1865, and it existed through many vicissitudes until the Fire of 1871 ended its strange, eventful history, which is told in another part of this history.

A "variety" theatre was opened in Chicago in 1863, but its success was not like that of the vaudeville houses of the present day; in 1869 it was taken over by Frank E. Aiken and changed into a "first class place of amusement" (an adequate comment on the feeling then prevailing toward a variety show). In a few months it became the Dearborn theatre, under new management, which survived until the general ruin of October 9, 1871.

OTHER HALLS AND THEATRES

Among other public auditoriums in Chicago before the Fire were Smith and Nixon's hall, on the southwest corner of Washington and Clark streets, having excellent acoustic properties, and being much used for lectures and musical entertainments; Metropolitan Hall, built in 1851 on the northwest corner of Randolph and La Salle streets, and used for concerts and lectures; the Academy of Music, on the south side of Washington street, between Clark and Dearborn, used sometimes for minstrel shows, and again for opera; the Staats theatre, on the West Side, and, after it burned down in 1870, the Globe theatre, on the same site—on Desplaines street, between Madison and Washington street.

In the shifting audiences of the modern Chicago theatre there is not the same feeling of personal interest which existed between the actor and his listeners when the city was new. Then the players were often well known local figures, or visitors whose repeated appearances were looked for by a large number of friends. In turn the actors well knew whom they might expect to see in the audience when they came out upon the stage. It was then not a matter of choosing between a score of entertainments, each one offering first class attractions. It was rather the interest felt in seeing an old favorite appear from evening to evening, in one play after another, as the bill changed in order to offer to the public a variety of entertainment.

ADVENT OF PATTI

During the first twenty-five years of the city's growth, musical events were infrequent, musical societies flourished spasmodically, and opportunities for instruction were meagre. There had existed, in slow succession, the Old Settlers' Harmonic Society, which achieved one concert, in 1834; the Chicago Musical Society, and the Mozart Society, organized in the forties, and each one the victim of an early blight; the Philharmonic Society, founded in 1850 by Julius Dyhren-

furth, which existed intermittently and sometimes precariously for about eighteen years, and which did much in introducing and popularizing orchestral music in Chicago. The opera came in 1850, and Richard Hoffman had played in Concert two years before. So the city had had a taste at least, of orchestral, choral and operatic music, and of concert playing. Then came a singer who was already, though a child, one of the world's greatest artists, and who was among the first of that great number of musicians from abroad who have since then visited and been welcomed in Chicago.

Adelina Patti came to Chicago in 1853 when she was ten years old, and sang in the dancing hall of the Tremont House, which had been transformed into an auditorium after Rice's theatre burned down. Mr. Upton describes her as he saw her then as "a somewhat delicate, pale-faced, dark-browed child, with thick glossy black hair hanging in two long braids down her back, dressed in rose-colored silk, pink stockings, and pantalettes. She is perfectly at ease and glances around confidently, with a mischievous smile lurking about her mouth, but reserving her special radiance for rows of young girls in the front chairs, with some of whom she has made a hotel acquaintance. Upon this occasion she followed up the execution of a brilliant aria with a request most unconventionally made to her friend Nellie, who seemed to be the favorite in the little diva's dominion, to come to her room when the concert was over and get acquainted with the sweetest doll in the world. At that time she doted upon children, dolls, candy, and birds. She could be induced to sing any time by the promise of a box of candy or a bird in a cage. She was an imperious little creature also. She hated encores as bitterly as Theodore Thomas did. When they were called for, she would refuse to give them. The insistence of the audience at last would exasperate her, and she would shake her head vigorously. Thereupon the amused audience would redouble its efforts, only ceasing when she began to manifest anger by stamping her little foot."

On this tour with Patti was Ole Bull, who was also for the first time appearing in Chicago. Although his career was scarcely begun, he was already giving "farewell" concerts in America, a good old custom which he kept up until the last, appearing in many a "positive farewell" performance, the last time being in 1880, just before his death. Patti began her series of farewells in 1855, when she was twelve years old, and continued them in various cities for fifty-two years thereafter.

SYMPHONY CONCERTS

The first symphony concert heard in Chicago was given in 1853 by the Germania Society, which was making a tour in the West. This organization was the real pioneer of instrumental music in America; it introduced new music and maintained a high standard in spite of the discouragements and financial difficulties which were inevitable with such a movement among people not accustomed to hearing classical music. The society had come to this country in 1848, and for five or six years gave concerts in different cities. Lenschow was the conductor until 1850, when he became discouraged and resigned his place to Carl Bergmann, the first 'cellist in the orchestra. When they came to Chicago they were accompanied by Camilla Urso, the little girl violinist, who was even then, at ten years of age, a brilliant artist. A year or so after their visit to Chicago the

society disbanded. Carl Bergmann, its leader, returned to Chicago to lead the Philharmonic society, but soon left on discovering that he was actively opposed by local musicians.

THE PATTI FAMILY

Of Adelina Patti's large family of brothers and sisters, several came to Chicago during the fifties and later. Amalia was the first to come, in 1848, and she returned frequently thereafter. Her voice was quiet, melodious, and well trained, and her manner graceful and high-bred. With the overshadowing reputations of her two sisters, however, her gifts may have been without the proper appreciation. She was the wife of Maurice Strakosch, the impresario. Carlotta Patti, the great concert singer, came frequently in later years to sing in concerts, and in 1879 to sing at the dedication of Central Music Hall. Her abilities, thought by many to have been greater than those of her famous sister Adelina, were discounted by lameness, which was due to a fracture received in childhood. Her voice is said to have been as rich as her sister's and of greater range, her beauty was greater, her dramatic ability marked, and her sentiment very fine. To her misfortune must be ascribed her lesser fame, as her performances were necessarily confined to concert singing. Carlos Patti, a brother, was an adventurous, melancholy person, a musician whose heart was not in his work, a man without great success.

The singer Teresa Parodi first came to America as a result of the Jenny Lind fever. The manager Maretzek, wishing to score such a success as Barnum had done with Jenny Lind, sent for Parodi, and sought to arouse public interest and anticipation by inventing the same sort of extravagant tales as had been told of Jenny Lind. Her success was marked, though not as that of the "Swedish Nightingale." She was in Chicago frequently during the fifties: with Amalia Patti in 1851 and 1855; in 1856 with Paul Julien, the violinist, and Henry Ahner, the cornetist, of the Germania Orchestra, recently disbanded. When the first regular Italian opera troupe visited the city in 1859, Parodi was a member.

A NOTABLE SEASON OF OPERA

From the time when the New York opera came to Chicago in 1853 there was no opera there until 1858, when the Durand English opera troupe came to McVicker's theatre, which had recently been built. The next year the opera season was a notable one, for then came the first Italian opera troupe, including Teresa Parodi, Amalia Patti, Cora Wilhorst, Pauline Colson, Henry Squires, Brignoli, the elder Amodio, Junca, Nicolo, Ettore Barili and Maurice Strakosch as conductor. Then for the first time Chicago heard the operas "Lucrezia Borgia," "Traviata," "I Puritani," "Rigoletto," "Il Trovatore," "Martha," "La Favorita," "Don Giovanni," "Maritana," "Ernani" and "Il Poliuto." The favorite operas of the season were "Il Trovatore" and "Martha," and their lovely melodies were sung by Brignoli, the tenor, whose "tones had a silvery quality and were exquisitely pure;" by "the pretty and vivacious Pauline Colson," whose "Last Rose of Summer" excited frantic enthusiasm in the audience; and by the other artists, whose singing was of a high order of excellence and charm. In those days it was the tune and melody of music which appealed to the people, whose taste was not educated by careful reading of musical criticism or attendance upon music study classes. From this time opera companies frequently visited the city.

There had been a number of excellent concerts during these years. In 1857 three musicians came together—Vieuxtemps, who "was in most respects the best trained and most cultivated violinist of his day, and played with an elegance of style, a richness of tone, and a perfection of technic which have rarely been excelled even in these days;" Madame d'Angri, a contralto with a fine voice; and Sigismund Thalberg, a pianist of perfect technic, but little feeling. A memorable concert was one in which Gottschalk appeared with Carlotta Patti, in 1860. Gottschalk "was a charmer at the piano, and fascinating as a fellow-being." He was a lover of Beethoven's music, though in concert he usually played his own productions, which the public seemed to prefer him to do. Two years later he and Carlotta Patti returned, and again in 1864 he was here to open Smith and Nixon's Hall, on the corner of Clark and Washington streets. This was his last visit to Chicago.

BAND CONCERTS

After the breaking up of the Germania Orchestra, which had been led by Carl Bergmann, Henry Ahner, the first cornet, came to Chicago and organized orchestral concerts of a high order. His struggle to maintain his standard and at the same time to make a living was a hard and futile one, and he died in January, 1858. Later in the chapter there is more told of his work and his heroism.

At the Convention of 1860, when Lincoln was nominated for president of the United States, Patrick Sarsfield Gilmore was in the city with his band. They were the escort of the New England delegation to the convention, and during their visit they gave several concerts at Metropolitan Hall. Gilmore came to Chicago often after that, and was always welcome. He loved to give great concerts, in immense buildings, with hundreds of pieces in the band and thousands of voices in the chorus. When he gave his Chicago Festival lasting three days, in June, 1873, to celebrate the recovery of the city from the Great Fire, he held the affair in the new passenger station of the Lake Shore Railroad. "It was a structure which satisfied Gilmore's ideas of bigness, for it was nearly two blocks in length and accommodated forty thousand people. His band was enlarged to three hundred pieces, and a chorus of one thousand singers was organized by Mr. J. M. Butterfield. It was the kind of festival Gilmore liked—no soloists, simply a multitude of voices and instruments uniting in the 'Hallelujah Chorus,' 'The Heavens are Telling,' 'The Star-Spangled Banner,' 'The American Hymn,' the 'Gloria' from Mozart's 'Twelfth Mass,' and other pieces, not forgetting the 'Anvil Chorus' and all the anvils Gilmore could beg or borrow on the South Side. It was a gala week for all concerned, and the festival closed with 'the most magnificent and select social affair ever given in the country,' as the official bulletin described it—'an elegant and recherché ball' in the rebuilt Chamber of Commerce, in which all 'the distinguished citizens' cooperated with Gilmore, who furnished three orchestras, one for the dance, one for the promenade, and one for 'the collation.'"

WAR SONGS

During the first two years of the war music was of little interest to Chicago except as it was patriotic in character. On the steps of the courthouse, Frank and Jules Lumbard, John Hubbard and Charley Smith used to sing war songs,

and to these gatherings the people were attracted to the loss of whatever rival musical event might be in the city at that time. In the third year of the war Jacob Grau, the impresario, brought an opera troupe, and again in 1864 he came. In that year the Soldiers' March from "Faust" was played by the Light Guard Band, a Chicago organization which was regarded with great pride by the citizens. The next year was signalized by two visits of the first regular German opera troupe, and by the completion of the Crosby Opera House and its dedication by Jacob Grau and his troupe. All this made of 1865 a great year in Chicago's musical and artistic development.

OPERA IN THE SIXTIES

Crosby's was to have been opened the night of April 17, but when the terrible news of Lincoln's death came, the date was changed to April 20. On that evening the most brilliant audience that had ever come together in Chicago was present at the dedication of the new opera house, and a program worthy of the occasion was given by the singers brought for the purpose. Carl Bergmann was the director of the orchestra, and the star was Clara Louise Kellogg, fascinating, graceful, and with "a voice of great compass and beautiful quality." Concert players and opera troupes continued to visit Crosby's until the end of 1868, though in the meantime the opera house was offered for sale by lottery, and was later managed by the brother of the original owner. Its history was a varied one from that day; for it was used for promenade concerts, charity balls (the first given in Chicago), regular opera and opera bouffe; for the presentation of the spectacular "Humpty Dumpty," and for a medley of entertainments, including pantomime performances, exhibitions of trained animals, gymnastic feats and bellringers. Caroline Richings came twice to Crosby's in English opera, the second time with her own troupe, which included Zelda Harrison, William Castle, and "Sher" Campbell, all excellent singers. Mr. Upton speaks of these artists as the best English quartet singers ever heard here. Caroline Richings "was the smartest, brightest, hardest working artist of them all. . . . Zelda Harrison, who subsequently married Seguin, the artist, was one of the most delightful of singers and a charming actress, especially as Nancy in 'Martha,' Cherubino in 'The Marriage of Figaro,' as well as in the serious parts of Urbain in 'The Huguenots,' Azucena in 'Trovatore,' and Adalgisa in 'Norma.' William Castle, a handsome, dashing tenor, was a universal favorite. He was an excellent actor, and had a smooth, rich, velvety voice, that lent itself admirably to melodious roles. 'Sher' Campbell was the basso of the quartet. . . . He was not a remarkable actor, but he sang with much feeling and expression, and was at his best in such songs as 'The Heart Bowed Down' in the 'The Bohemian Girl,' and 'The Di Provenza' in 'Traviata.' . . . And how we all thought that the 'Good Night' in 'Martha' would never be sung so well by any other four! Certainly there were never four voices better adapted to each other."

In the season of 1869-70 Parepa brought to Crosby's Opera House her own English opera troupe, in which was "the charming little Rose Hersee, a fascinating singer and refined and elegant actress." Parepa was a most delightful woman, as well as a beautiful singer. "Her unvarying good nature and big-heartedness," Mr. Upton writes, "somehow blended most happily with her rich, flexible, and almost inexhaustible voice." This troupe first presented in English the operas

"Oberon," "The Puritan's Daughter," "The Black Domino," and "The Marriage of Figaro." "In connection with the first performance of 'The Marriage of Figaro,' the audience was treated to a revised version of the libretto. It will be remembered that in the conspiracy to punish the Count, Susanna contrives a rendezvous with him in the garden, and arranges with the Countess that she shall disguise herself as the maid, the latter assuming the identity of the Countess. But at this point an awkward situation arose. As Parepa was very stout and Hersee was very slender, the scene would have been so ludicrous as to spoil the effect. Parepa and Carl Rosa called me into their council, and at last the problem was solved by the addition of a few lines, introduced as spoken parts, which humorously explained the situation and forestalled the inconsistency by preparing the audience for it. The difficulty was satisfactorily bridged over, and few in the audience probably suspected the text had been tampered with."

THE END OF CROSBY'S OPERA HOUSE

In the spring of 1871 Maretzek returned to Chicago, bringing with him a German opera troupe, which sang at Crosby's. During the following summer the opera house was closed while it was being quite made over at an expense of eighty thousand dollars for redecoration, and for new and luxurious furnishings. The opening of the new Crosby Opera House was to be Monday evening, October ninth, with a concert given by Theodore Thomas and his orchestra. The work of renovation was completed on Saturday, October seventh, and on Sunday evening a number of those interested in things dramatic and musical had gathered at the opera house to see it lighted up. They were filled with enthusiasm over the beauty of the new improvements, and hoped great things for the coming season. Within a few hours, not only Crosby's Opera House, but all the business section of the city, was swept away by flames; and after they had passed there remained only flat desolation in every direction.

THEATRES AFTER THE GREAT FIRE

In the *Tribune* of October 9, 1872, the first anniversary of the great fire, we find an account of the beginning of dramatic activities after the fire, and read that Colonel Wood, whose Museum on Randolph street had burned down, immediately secured the Globe theatre on Desplaines street, an old wooden shell which had run through various vicissitudes of fortune. Colonel Wood announced—but went no further than announcing—a grand renovation of the Globe, brought together a large number of his old Museum company, and opened the Globe on the 21st of October, only thirteen days after the fire. The next theatre to be opened in the down town district was Aiken's, on the northwest corner of Wabash avenue and Congress street. It was dedicated by the Thomas Orchestra in a concert given October 7, 1872, almost exactly a year after the same orchestra had come to Chicago to give a concert at Crosby's Opera House and had been forced to turn back from the burning city. Aiken's later became a variety theatre, and was called the Adelphi. In the second great fire of 1874, the Adelphi was burned to the ground.

McVicker's theatre was the first one to be rebuilt after the fire on its former

site, and was opened August 9, 1872. Since then this theatre, located at the same place, has maintained its standing among the good playhouses of the city. On October 17th of the same year Hooley's theatre, the second to be rebuilt on the former site, was opened. Many were there that night to honor and encourage Mr. Hooley for the fresh start he had made. Just before the fire he had prepared to leave the theatrical business, having made a comfortable fortune, which consisted largely of Chicago investments. Both his personal property and property in buildings were completely destroyed, and he was forced to return to the work he had prepared to leave.

A new Adelphi, the successor to that one burned in July, 1874, was built, but not on the old site. Its manager had leased the old postoffice building, whose walls had stood from the time of the fire of 1871, and were found to be in need of very little repairing. Within these walls, securely supported, was built a second Adelphi. The large seating capacity of this theatre, with its balcony and two galleries, and its two sole narrow flights of stairs as exits, made it a terrible fire trap. On January 11, 1875, this theatre was opened to the public. In 1878 it was rebuilt and renovated, being then in the hands of J. H. Haverly, who had changed its name to Haverly's. To this theatre came Colonel Mapleson with the first Italian opera troupe which visited the city. In 1882 the lease fell in—fortunately, before the walls did so; and the First National Bank leased the property, tore down the old walls, and built there a bank which they occupied until 1904, when their handsome sixteen story building, erected on the same site, was completed.

J. H. Haverly next united with John B. Carson and leased property on Monroe street, just west of Dearborn, and built a new theatre called the Haverly theatre, which was opened September 12, 1881. In 1885 the name was changed to that of the Columbia theatre, suggested by Henry Irving, the theatre being re-christened by Ellen Terry at the end of one of her engagements there. As the Columbia, the theatre stood until it was destroyed by fire some years later, happily without loss of life, the fire occurring late at night after the usual performance was over.

Soon after the great fire, on the site of the old Bryan hall and Hooley's opera house, was built a billiard hall which in a few months was transformed into a German music garden, and later through various changes into a regular theatre. In September, 1880, John A. Hamlin opened it under the name of the Grand Opera House, by which it has been known ever since.

Theatre building has increased rapidly during the last thirty years, until now Chicago has sixty-three theatres, thirty-seven of which have a seating capacity of a thousand or more. The most striking recent development in this line has been the enormous vogue for five and ten-cent theatres, of which there are now four hundred and ninety-five in the city. Many of these theatres devote a large part of the program to presenting moving pictures, which have become extremely popular in the last few years.

REVIEW OF THEATRICAL DEVELOPMENTS

Among the managers of the days after the fire were J. H. Haverly, whose name as manager seemed to insure the success of any theatre, no matter what its previous standing; C. D. Hess, who was well known through the country as

an operatic manager before he became acting manager for John A. Hamlin of the Grand Opera House; William J. Davis, who was connected with the Haverly theatre in management, and has been one of the well known managers of recent years.

The history of the drama in Chicago during the past thirty years is about the same as that of any other large city of the country, owing to the uniformity in various communities which results from the combination system. In the days before the fire the stock company plan prevailed; the proprietor of each theatre maintained a company, which played throughout the season at his theatre. These companies were above all versatile, for their repertoire must include a great number of plays, in order to offer sufficient variety to their public, which could easily exhaust the resources of the two or three companies in the town, unless these companies continually offered new attractions. McVicker's, which had long been recognized as the home of the legitimate drama, maintained a stock company longer than did almost any other theatre in the country. Owing to the difficulty of enacting some of the greater parts, for which, often, no member of a stock company was found adequate, these parts were specially studied by players whose abilities were considered greater than those of the average actor. These players, trained in particular parts, and known as "stars," traveled from city to city, in each place being supported by the local stock company, who had prepared their parts independently of the principal character. The obvious and well known disadvantage of this star system is the stress laid upon the work of the principal actor, and a growing disregard for the acting of the rest, thus preventing an artistic performance. Among the stars who visited Chicago during the seventies, when the star system prevailed, were Booth, Barrett, Jefferson, Raymond, McCullough, Maggie Mitchell and Modjeska.

The introduction of the combination plan gave opportunity for the adequate preparation for an artistic presentation of a play. By this system a company makes a specialty of one or more plays, the actors rehearse together, travel in a company from place to place, and carry with them their own costumes and stage property. They contract with the local manager for their engagement in each city. The arrival in Chicago of Daly's Fifth Avenue company, in 1876, was the introduction in this city of the combination plan.

The first public entertainment after the fire was given the latter part of October by the Wood's Museum Company, who played "The Poor Gentleman" at the Globe theatre on the West Side. From that time on during the winter there were frequent lectures and dramatic entertainments in the city. The first concert after the fire was given at Martine's Hall for the benefit of St. John's church. In February, 1872, Carl Rosa came to the Globe theatre with an opera company, in which was Theodor Wachtel, the robust and passionate tenor, who made his Chicago debut at that time. Of him Mr. Upton tells a touching anecdote: "With all his bluster and pomposity he had a fine vein of sentiment; . . . one evening a telegram was brought to him between acts, announcing the death of his son. He finished the opera, and at the end of the last act interpolated the song, 'Gute Nacht, mein herzliches Kind' (Good night, my dearest child)."

ORCHESTRA HALL

OPERA STARS

Pauline Lucca first appeared in Chicago in 1873. "She was a graceful, handsome, and sprightly little creature, a most accomplished actress, and one with the highest regard for dramatic truth and propriety. In fact, it is difficult to say which was her greatest attraction, her beautiful, sympathetic singing, *teste* 'Kennst Du das Land?' in 'Mignon,' or her dramatic power, *teste* the scene with Mephistopheles at the church door in 'Faust.'" Her fascinating personality made her the favorite court singer of old Emperor William, and won for her the devotion of statesmen and the adoration of the army, which she dearly loved.

An opera troupe came to Chicago with Max Strakosch in 1874, and among the singers were Christine Nilsson, Annie Louise Cary, Italo Campanini, Capoul and Del Puente. Since then opera has been given in Chicago almost yearly, though it has had its serious failures as well as its marked successes. Here and there an operatic star stands out in particular brilliance. Such a one was Christine Nilsson, who "had a voice of remarkable sweetness and beauty, vocalization of the most skilful and fluent sort, and brilliant fioriture. She had a peculiar grace of manner and seemed to sing with her expressive eyes and every motion of her supple figure. . . . She always observed a most courteous demeanor before audiences and had a personal appeal in her singing that gave each one in the audience the impression that she was singing for him or her."

Another favorite was Clara Louise Kellogg, an aristocratic and refined singer whose voice was comparable to Patti's, of great compass and beautiful quality; another, Annie Louise Cary, made her appearance in the seventies and enjoyed a wide popularity. She "had a noble contralto voice of violoncello quality, and a free and facile manner of singing which appealed to everyone. . . . She was fairly radiant with kindly good humor, though she never carried familiarity too far. She was simply a Maine girl, fond of neighbors wherever she found them. She was democratic and unconventional, and her friendly, sonorous 'Hello' was but the expression of her warm, sunny nature. She was as unlike the popular conception of an operatic artist as it is possible to imagine. Prima donnas are not usually hail fellows well met. They do not carry their sewing on the trains. They do not mingle with people. They do not give you a stout grip of the hand. They do not break out into sunbursts of smiles or resounding laughs, or send wireless despatches to friends in the audience. Once Cary went to an Illinois town to sing and had to put up at an inferior hotel. The room to which she was assigned was not clean. The windows were dingy. It was forlorn and uncomfortable, but it was the best room in the house. She ordered the maid who showed her up to bring a broom, a pail of water, and a mop, and help her clean up. In a short time the room had undergone a change into 'something rich and strange,' and Cary, feeling relieved, for she could not abide dirt, sat down with her knitting and awaited the hour for the concert. Strakosch, when her manager, paid her a high compliment by declaring that, well or sick, she was always ready to go on and do her best. She could sing every night and never complained when suddenly called upon. 'She is a Jewel!' said Strakosch."

Emma Abbott, popular throughout the country as an excellent singer and a fascinating woman, was born in Chicago in 1850. Personally she is interesting, for she had many endearing homely qualities, and as organizer and main figure

of the Abbott English Opera company achieved great success in the large cities of America. As a young girl of seventeen she first appeared in Chicago, in concert, and twelve years later, after study in New York and abroad, she appeared here in opera. Although her work did not appeal to those most critical musically, still her really good singing, her charm of manner, and her sterling qualities, sincerity of effort and constant industry gained for her the popularity and great financial success not acquired by many who were greater artists. Miss Abbott's firm adherence to religious principles caused her at one time to sever her connection with Mapleson, who wished her to sing a role she considered immoral; this occurrence, which she feared would cause heavy financial loss, in reality proved a valuable bit of advertising and increased the number of her admirers. In 1874 Miss Abbott was married to Eugene Wetherell, who until his death was her manager and devoted lover. Together they made and saved a large fortune. Her death occurred in 1891.

She did much to give to the masses of people of this country an insight into operatic works that but for her would have been unknown to them. The average ability among the singers in her company was high, her object being excellent and symmetrical *ensemble* rather than individual star work.

Jessie Bartlett Davis was an opera singer who was a part of Chicago more than any of those who came as strangers and acquired popularity here. She was the daughter of an Illinois farmer, and came to Chicago in the late seventies to study music, singing in church choirs. She became a member of the Chicago Church Choir Pinafore company, which was so successful that it made a tour of the country. In 1880 she married Will J. Davis, a theatre manager of this city. She sang with Adelina Patti in grand opera, and was brilliant and graceful in light opera. For twelve years she was a member of the famous Bostonians, a troupe organized in Boston for the performance of "Pinafore," whose repertory also included "The Marriage of Figaro," "Chimes of Normandy," "Trovatore," "The Bohemian Girl," and other operas. For a season Mrs. Davis sang in the principal vaudeville theatres of the country, and during the following season she made her last appearance in a regular singing organization when she was one of the "all-star" cast of "Erminie." She died May 14, 1905.

During the eighties both Nilsson and Patti were occasionally in Chicago, singing in opera and concert. In 1884 they were in the city at the same time, Patti at the head of old Colonel Mapleson's troupe, and Nilsson with Manager Abbey, who had with him, besides, Sembrich (who then first sang in Chicago), Campanini and other operatic stars. Colonel Mapleson, "of her Majesty's theatre" was an oddity. He was a tall, military, rubicund Englishman, feeling his importance, and indomitable in spite of a career troubled by whimsical prima donnas and imperative creditors. Withal he was usually an affable and most entertaining person. To him is due the success of Chicago's great operatic festival of 1885, which was held in a temporary opera house erected for the occasion in the north end of the old Exhibition building.

MUSICAL FESTIVALS

The first May festival that was given in Chicago was held in 1882, in a festival hall fitted up in the old Exposition building. The program, the soloists and the orchestra were the same as those in the May festivals of that year held just be-

fore in New York and Cincinnati under the direction of Theodore Thomas. The Chicago choruses were trained by W. L. Tomlins, who had worked with them for eight months before the festival in securing the excellent results with which alone he was satisfied. There were nine hundred people in the chorus, two hundred and fifty of whom came from Milwaukee.

Among the brilliant artists who sang in the Chicago May festivals of 1882 and 1884 was Madame Materna, who made her Chicago debut in the first festival. She is particularly famous because of her interpretations of Wagner. She "became Wagner's chosen Brunhilde and the creator of his Kundry, and was identified with his music-dramas until her retirement in 1897."

Another great Wagnerian singer who came to Chicago was Lilli Lehmann, of whom Mr. Upton says, "Her voice was one of great beauty as well as power and flexibility, and her magnetic influence so strong that many who went to scoff at Wagner returned converted. Her personations were so informed with emotional power that few could resist their spell. She was a singer possessed not alone of a beautiful voice, fluent technic, and most engaging presence, but of the rare power of impressing the listener with the beauty of the Wagner conceptions and the dramatic quality of his music."

NEW MUSICAL ORGANIZATIONS

The existence of the early musical societies of the city was precarious. The Chicago Musical Union, founded in 1857, included the best singers in Chicago. Its spirit, as well as its warblings, was characterized by harmony, and it fully succeeded in the avowed objects of its formation, which were "public entertainment, personal enjoyment, and social hilarity." Toward the end of its existence it had for leader the conductor Balatka, who had been the leader of the old Philharmonic Society, and for years a most popular conductor in Chicago. At the same time the Mendelssohn Society was flourishing, and with Adolph W. Dohn as its conductor was giving occasional concerts, for each of which the training was long and thorough. The Society sang for the last time at the funeral service of Lincoln, which was held in St. Paul's church. Following the disbanding of these two musical societies in 1865, others came into existence and had varied histories of sharp rivalry, occasional dissensions and pronounced excellence of work until the fire in 1871, which put a stop to music for some months, and left the city with no musical organization of any kind. In the next September, according to the plan of Silas G. Pratt, a chorus of male voices was brought together, and Mr. Upton was elected president of the club formed. This was the beginning of the Apollo Club, whose work is familiar to every music-lover in the city. Mr. Dohn was made conductor, and the concerts that were given justly attracted great attention. Some notable soloists assisted, and the club sang with the Thomas orchestra at the time of one of its visits to the city. When the organization was changed from a *Mannerchor* to a mixed chorus, Mr. Tomlins became the leader and brought the work of the club to a high mark of excellence. Mr. Tomlins later gave up the leadership of the club, and devoted himself to the training of children's choruses, in which work he became eminent. His place was taken by Harrison Wild, who has maintained the high standard of the Apollo club, now one of the leading choral societies in the country.

The Beethoven Society, which was formed as a mixed chorus soon after the organization of the Apollo club, with Carl Wolfsohn as conductor, did excellent work during its eleven years of existence. "There is no question that Mr. Wolfsohn was sincerely devoted to music, that he was uncommercial in every way connected with art, and that he labored honestly and indefatigably to make the Beethoven Society a power in music; but while he was a better musician than Tomlins, he was not so able a conductor." The rivalry of the two clubs was keenly felt, and was finally the cause of the disbanding of the Beethoven Society.

The name of George F. Root immediately suggests the war time music, especially as it was sung in Chicago. "The Battle Cry of Freedom" was written by him just after he read Lincoln's second call for troops to serve in the Civil War. The very day it was composed the Lumbard brothers sang the song at an immense rallying meeting held in the courthouse square. Immediately the air and chorus were caught up, and were sung throughout the city, in the army, and in all parts of the North. "It became the Northern Marseillaise," and was the most popular song of war times. Mr. Root's compositions include such good old songs as "There's Music in the Air," "Just Before the Battle," "The Shining Shore," and cantatas for mixed voices. Mr. Root was a citizen of Chicago from 1861 until his death in 1895, and there are many who remember the figure of the courteous, amiable old man whose music store on Wabash avenue was a favorite resort of music lovers.

CENTRAL MUSIC HALL

The opening of Central Music Hall, situated on the southeast corner of Randolph and State streets, took place December 5, 1879. A concert was given by the Apollo Musical Club, with Carlotta Patti as soloist. In this building Chicago had the finest concert hall ever before constructed in the city, a hall intended exclusively for intellectual entertainments of a high class, such as concerts and lectures. It contained a double organ which was built at a cost of $14,000. In the building were rooms for commercial establishments, besides seventy smaller rooms that were rented for offices. The building stood until 1901, when it was torn down to make room for the enlargement of the store of Marshall Field and Company. Mr. George B. Carpenter was the founder of Central Music Hall and its manager until his death in 1881.

WELL-KNOWN IMPRESARIOS

A figure familiar to opera goers for many years was that of Jacob Grau, who used often to be seen near the box office of the opera house in which his company sang, and whose personal appearance was indicative of the success of the season. "When business was bad, 'J. Grau' would appear near the theatre entrance indifferently attired, wandering about with dejected mien, one eye furtively watching the box office, and his whole bearing seemingly expressing personal hopelessness and pecuniary distress. On the other hand, when business was good and crowds were flocking to the opera like doves to the windows, and the box office was besieged, behold 'J. Grau' flitting about in his crush hat, immaculate tie, and superlative evening habit, his face wreathed with a continuous performance of smiles and an expression of serenest satisfaction. 'J. Grau's' hat was at any time an infallible

index of business." Yet he clamorously insisted that it was not to make money, but to offer to the public the best in art, that he journeyed about with his singers. He was here in the third year of the war, thinking that it was then financially safe to venture into the "States;" he came to dedicate Crosby's Opera House in 1865, and had a most successful season.

Maurice Grau, the nephew of "J. Grau," served an apprenticeship under his uncle. He was, however, a much more successful manager and a more pleasing man than Jacob Grau, being quiet and reserved and invariably courteous in his dealings with others. For several years he was associated with the managers Abbey and Schoeffel, and for about ten years was sole manager. During his career as manager he introduced in America, Jean and Edouard De Reszke, Calve, Schumann-Heink, Sembrich, Eames, Melba, Ternina, Gadski, Nordica, Rubinstein, Wieniawski, Capoul, Sarasate, Joseph Hofmann, and some great dramatic artists, among them Salvini, Bernhardt, Coquelin, Rejane, and Henry Irving.

Two great musicians came to Chicago in 1872—Rubinstein the pianist and Wieniawsky the violinist. They played together in concert, and also with the Thomas orchestra; "and they gave memorable concerts. They set the standard for piano, violin, and orchestra playing. . . . [Wieniawsky] was a master of his instrument, and played not only in artistic style, but with a fervor and at times a boldness and dash that thrilled you." Rubinstein's playing was expressive of his great passions, modified by his artistic nature. "He could play with tremendous power, . . . and on the other hand his melody was characterized by a delightful singing quality, for with all his energy, which sometimes appeared ferocious, he still had great beauty of tone." Of the playing of Rubinstein and Wieniawsky Mr. Upton says, "The two players were admirably mated, both trained musicians, skilled interpreters, and players for whom difficulties did not exist, and both infused with a divine fury at times."

NOTED ORCHESTRA LEADERS

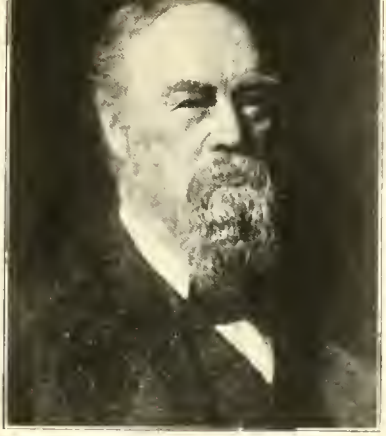
The story of the first orchestral association formed in Chicago has been told in that of the old Philharmonic Society, which was the result of the efforts of Julius Dyhrenfurth. It continued intermittently for some years after its formation, under various leaders, each one giving up the struggle after a short time. Carl Bergmann, of the disbanded Germania Society, was at one time its leader: Henry Ahner directed it later. Among the musical people of Chicago the memory of Ahner is one to excite deepest sympathy. With an orchestra of twenty-six pieces, he gave popular concerts in Chicago in 1856, 1857, and 1858. The attendance upon these at first was good; but the city was not ready for orchestral music; the audiences gradually grew smaller, and Ahner, defeated and disheartened, was finally forced to give up the work, since he had no financial support and was himself a poor business man. His friend Mr. Upton says of him, "Never was there a musician of more honest purpose, a gentleman of finer quality, than Henry Ahner. Never did a musician work harder, and never was a musician more ungratefully treated or meagrely compensated. His career in Chicago resembled a tragedy." "He had some money when he came to Chicago, but lost it all. His appeals for help were not recognized, but he labored on manfully and courageously. He was a man of

exquisite refinement and most tender sensibilities, and being also of delicate physique, the strain was too much for him. I have a letter from him among my musical souvenirs, written to me two days before his last concert, in which he desires me to print the programme and ask people to come to the concert, adding at the close: 'I feel that I shall not trouble you again.' The concert was given to a handful of people, and within two weeks afterwards he died penniless, broken-hearted, and almost alone. Two or three of us paid his funeral expenses, and accompanied his body to the cemetery one bitterly cold January afternoon in a blinding snow-storm, and left him to his rest."

Hans Balatka was the next noteworthy leader of the Philharmonic Society. He gave his first concert November 19, 1860, and on that evening Wagner's music was first played in Chicago, when a chorus from "Tannhauser" was given. For six seasons Hans Balatka and his orchestra were immensely popular, and in a musical way Chicago grew almost sophisticated in her possession of a really excellent orchestra, and in hearing the chamber concerts provided by Balatka. After this, however, the interest in the orchestra diminished, and at the end of the eighth season the Philharmonic Society was again discontinued. A new standard in music had been set, however, for Balatka had introduced much classical music and had brought to the city many notable soloists. He reorganized the Philharmonic Society in 1868 and was entering upon a second season with it, when Theodore Thomas came to Chicago with his Central Park Garden orchestra, and gave his first concert there. The work of Thomas was so markedly of a high order that it henceforth became the standard, and Balatka from that time appeared seldom as a conductor.

THEODORE THOMAS

The frequent visits to Chicago of the Thomas orchestra, which acquainted the public with the highest class of music, enlivened and maintained the interest in orchestral music to such an extent that there came to be a demand for a permanent orchestra such as Boston already had. As a result of this, at a meeting of those who were ambitious for the musical development of the city, the Chicago Orchestral Association was organized on March 5, 1891, "formed for the purpose of maintaining a permanent orchestra of the highest character, resident in Chicago, and giving orchestral and other musical performances of the class." Theodore Thomas was invited to be the director, and in spite of conditions that were obviously unfavorable to the success of such an orchestra in Chicago, he accepted. Of the conditions there he writes in his memoirs, "Chicago is a city of nearly two million inhabitants, but the great majority of them belong to the class employed in mills, factories, and at all kinds of manual labor, while the cultivated class is comparatively small. This gives only a limited field of activity for a musician, and offers him little opportunity to add to his income by teaching or private engagements. The consequence is that there is little inducement outside of the orchestra for men of the ability required for a first-rank orchestra to settle there, and this makes it very difficult to procure them. The modern repertoire does not permit any curtailment in the size of the orchestra, and as Chicago could not furnish our leading players, they had to be brought from other parts of the world. In many cases the men thus imported were unused to such a rigorous climate as that of Chicago, and were driven away again by sickness, and had to be replaced."



GEORGE P. UPTON

THEODORE THOMAS

ILLINOIS THEATRE

Original owned by Chicago Historical Society

McVICKER'S THEATRE BEFORE THE FIRE

The first regular season of twenty concerts and rehearsals began October 16, 1891, and from that time until the present the concerts given by the Theodore Thomas Orchestra, as it later came to be known, have been continued regularly. At first they were given in the Auditorium, an ideal place for presenting orchestral music; in 1904 the Association completed Orchestra Hall, on Michigan avenue, which is now the home of the Theodore Thomas Orchestra. Mr. Thomas was leader of the orchestra from the time of its beginning until his death in January, 1905. Since then the orchestra has been under the leadership of Frederick A. Stock, and has maintained the high standard set for it by the great man who for fourteen years conducted it, and who was in the midst of his work when his death came, a few weeks after the realization of his life-long hope for a permanent home for his orchestra.

SKETCH OF THEODORE THOMAS

Theodore Thomas was born October 11, 1835, in Esens, East Friesland, by the North Sea. "Both my parents," he writes in his autobiography, "were refined and honest people." His father was *Stadtpfeifer,* or town musician, and the boy played the father's music. At the age of five he was playing in public. In his tenth year his family came to America and landed in New York. There the son played, with his father, in theatre orchestras, and later in a navy band, in order to help in the support of the family. This made schooling impossible. At fourteen "Master T. T.," as he advertised himself, was concert touring in the South, traveling from town to town "on horseback alone—if possible at night—carrying with me plenty of cigars and a pistol, hoping to be attacked on the road by bandits." In 1850 he was back in New York. About that time he began to realize the necessity of an education if he were to accomplish anything in the world.

His experience as orchestra player in the theatre had already made him acquainted with something of Shakespeare, and in the same way he now became acquainted with the plays of great German dramatists. In the fifties many musicians of the first rank came to America, and an immense stimulus was given to the boy's development in listening to these soloists and thus having his taste formed and his musical faculties trained. He himself played continually, in concerts and opera, and was very popular. In 1852 Thomas was leader of the second violins in the orchestra of Karl Eckert, who was in America with Madame Sontag's opera troupe. Of this man, "the only really fully equipped and satisfactory conductor who visited this country during that period," Mr. Thomas said, "his influence probably laid the foundation of my career." The next year he was concertmeister with Arditi as conductor, and wrote, "As concertmeister, I had both power and responsibility. . . . The order I had learned under Eckert I retained, and this made a first-class orchestra possible, and gave me much influence. From that time on there was probably no good instrumentalist who did not spend his first years in America in the orchestra I formed. It had a standard thereafter which made itself quickly felt."

In 1854 Thomas was elected as conductor of the New York Philharmonic Society. In that year he first visited Chicago, as first violinist in a small orchestra which came with a concert troupe composed of Amalia Patti, Ole Bull, Maurice Strakosch and Bertucca Maretzek. In the following year he was first violin in

the Mason quartet, which gave concerts in New York. In 1857 the quartet was continued as the Mason-Thomas quartet, and when, soon afterward, Mr. Mason devoted himself entirely to teaching, Thomas became the leader, and continued so until 1868, when the quartet was disbanded, owing to Thomas' growing attention to orchestra work, and his being obliged to travel. During these years Thomas had been studying the technicalities of music, and had served his apprenticeship as a practical musician and conductor. It was said of him that one of the greatest violinists in the world was spoiled to become the greatest conductor in the world.

THE THEODORE THOMAS ORCHESTRA

Convinced that "what this country needed most of all to make it musical was a good orchestra, and plenty of concerts within reach of the people," Thomas in 1864 organized an orchestra of sixty players; then followed the seasons in which were given in New York the Symphony Soirees, and the Summer Night Concerts given in the open air. Traveling with his orchestra, now greatly enlarged, was tried as an experiment and was found to be successful. It was by this means that Wagnerian music, then unknown outside of New York, was played in this country. The custom of giving musical festivals, also unknown in America, was introduced by Thomas in 1873, when a great festival was given in New York and another in Cincinnati.

Of the year 1870 Thomas wrote, "the orchestra had now become a first-rank organization, numbering sixty permanent members. Leading artists were sitting at all the first desks, and a high standard began to appear—higher, in fact, than had ever been reached before in America, both in programmes and in execution. The public began to be interested, and the future looked bright."

Mr. Thomas gave the first series of Summer Night Concerts in Chicago in 1877, beginning Monday, June 18, in the old Exposition Building, under the management of Carpenter and Sheldon. Of these concerts he wrote, "The building in which these concerts were given had been erected for exposition purposes, and was an immense structure, two Chicago blocks long, and proportionally wide, and innocent of either partitions or interior finish. One end only was used for concert purposes, and was converted into a sort of German garden by evergreen trees planted in tubs, and tables for refreshments in the rear part of the building. Common wooden chairs were placed in rows upon the wooden flooring of the front part for seats, and the passing of many railroad trains outside at times completely drowned out the music. In short, it was the last place in the world in which one would have expected orchestral concerts to succeed. Nevertheless, there was something in the very size and informality of the building which made these concerts always delightful, notwithstanding its unsuitability for musical purposes, and the programmes, though popular in character, were always filled with good standard music, besides many novelties, and each week we gave one Symphony and one Composer's programme."

PERMANENT HALL FOR THE ORCHESTRA DESIRED

With the exception of two years spent in Cincinnati, Thomas remained in New York until 1891, with his mind always set firmly on certain definite results—the

improvement of the public taste and the securing of a permanent hall with endowment for his orchestra. The physical difficulties and financial strain of filling all the engagements of the orchestra, including concerts given in other cities, was so great that frequently it seemed impossible to continue the New York concerts unless the orchestra might be endowed and made permanent. Of such obstacles to progress Thomas said, "Justice cannot be done to the present musical literature, either in quality or quantity, except by a permanent orchestra which rehearses together constantly. To make such an orchestra earn its own maintenance by playing every night—which means anywhere and everywhere—and traveling all day, does not allow time for rehearsals, nor for any high purpose, and makes artistic performances impossible. I saw no way of keeping together what I had built up during so many years of hard labor."

He continued his work there, however, and was able, in 1882, with the help of choruses which he had formed, to give a gigantic musical festival in New York, of which he says, "The greatest and most enduring effect was produced by the Wagner programme, especially the excerpts from 'Die Götterdämmerung,' for which Madame Materna had been brought over from Vienna. This performance created the greatest excitement I have ever witnessed, and made many converts to the Wagner music dramas. Considered from every point of view, this Festival was one of those great and musical occasions which rarely occur twice in a lifetime; it will long be remembered in the musical annals of New York." This programme was given at the fourth Cincinnati festival, which followed immediately, and a little later at the first of the Chicago festivals.

It is inspiring to read of the increased scope of succeeding concert tours. At first those cities in which orchestral music was possible were but few. Outside of New York the cities visited for occasional concerts were Boston, Philadelphia, Cincinnati, Chicago, and cities along the route. Later trips included the South. Festivals were given in Cincinnati, Philadelphia, New York and Chicago. Wagner's music was introduced, not only in New York, but in the cities which the orchestra visited. Now, in the spring of 1884, a festival tour was made from ocean to ocean! In spite of discouragements, of the failure of the greatest American city to provide permanently for an orchestra, in spite of the necessity of many years of wearisome traveling and overwork, Theodore Thomas was lifting the standard of music in this country higher and higher, and was making headway through every difficulty toward the goal for which he had started in the beginning —the cultivation of the public taste for instrumental music, and making music something beside a source of amusement to the public.

With all this accomplishment, however, Thomas wrote of the prospect for his New York orchestra in 1888, "the situation, instead of being better, was even worse for us than at the start, because all these years of educational work were beginning to bear their legitimate fruit. The people all over the country were acquiring a taste for orchestra music, but were not yet sufficiently cultivated to be very discriminative, and this opened a field for inferior orchestras and military bands. As they interfered with our pecuniary success, I preferred to stop." He had been promised that a large and well-appointed music hall would be built in New York for the orchestral concerts, but as the realization of this seemed less and less probable, he told his friends and the Philharmonic Society that he would

wait for two years to see if anything were done toward founding a permanent orchestra. Boston had established a permanent orchestra in 1880, and ten years later Chicago, "newly awakened to educational interests of all kinds," was ambitious to do the same thing. Still no sign from New York of anything of the kind, and in the meantime the chance that Thomas had offered was slipping away. In Chicago an orchestral association was formed in 1891, and the leadership of the prospective orchestra was offered to Thomas. He decided to leave New York, and the autumn of 1891 found him in Chicago with sixty men, whom he had brought with him from New York. To complete the orchestra, thirty more players were added, and the first regular season of the Thomas concerts was begun.

THE AUDITORIUM

Of one of his great difficulties Thomas wrote, "The only hall in which our concerts could be given was the Auditorium, an immense theatre, with a seating capacity of four or five thousand, which had been erected a few years previously for opera festivals, political conventions, and other large popular gatherings. The great size of this theatre called for the largest possible orchestra, but even then it was often ineffective, notwithstanding the remarkable acoustic properties of the building. It also contained so many seats that people felt under no obligation to buy season tickets to our concerts, knowing full well they could always find good places at the box-office at the last minute, whenever they desired to attend a performance. Thus our audience, instead of being regular, fluctuated from concert to concert, according to the weather or any other distracting cause. Our season was also interrupted several times a year by the other engagements for which the building was rented, such as the opera season, flower show, balls, and the like. This had the effect each time of scattering our audience and preventing people from forming the habit of regular attendance as well as of interfering with our rehearsals, while the preparations for these events were in progress. In other ways the Auditorium was not suited to our use." The lack of rehearsal rooms, locker space, waiting rooms, library, offices, and other evident necessities was a great inconvenience to the orchestra.

It was discouraging work at first. The people who attended the concerts did not like symphonies, and would even stay away when they were announced. When the question came before the Association of lowering the standard to please the majority, the vote was always "No," and each time the cause of good music was stronger. The work of the Boston orchestra was invaluable as an ally to Thomas as well as to directors in other cities, who found the inevitable difficulty in introducing unfamiliar classical music to their audiences. Civic pride made the Association decide that Chicago's concert programs should not be inferior to those of Boston. So year after year the Chicago Orchestral Association stood by the director and paid the annual deficit. At last it was decided that the orchestra must justify itself by standing alone, and efforts were begun to raise an endowment fund from which a home for the orchestra could be built and the expenses paid. The music lovers of the city were appealed to, and to the immense gratification of every one interested in the perpetuation of the orchestra, within a year most of the prescribed $750,000 was raised, having been given in small sums and large by

rich and poor. Orchestra Hall was completed in the fall of 1904, and the new and permanent home, given to the orchestra by the people of Chicago, was dedicated Wednesday evening, December 14, 1904, with a program in which the Apollo Musical Club and the Mendelssohn Club, both of Chicago, assisted the orchestra.

THE CHICAGO ORCHESTRA

The autobiography of Theodore Thomas, finished the last summer of his life, at Felsengarten, his vacation home in the White mountains, is closed with this: "We are now in the fourteenth season of the Chicago Orchestra. Its permanency is secure, its home is built and the object for which I have worked all my life is accomplished. The old saying, 'Better late than never' comes to my mind as I see in my seventieth year the realization of the dreams of my youth. But I trust I may still live long enough to show my gratitude to the men and women who have made this possible, and to leave behind me a young and vigorous institution to crown their achievement with a long future." The note of satisfaction, of work well done, of an object at last achieved, is clear in these words of the great leader. Then came the opening concerts of the first season in which the future of the orchestra was assured. The sixth concert was given in the Auditorium on December 9, the last to be held there, and rehearsals were begun in the new hall. There the plastering and fitting work had been so recently finished that the air was still damp and the building cold and full of draughts. Some of the musicians, among them Thomas himself, took severe colds. Nevertheless, he continued to conduct rehearsals, anxious to establish the orchestra in the new hall, and to prove to the city the excellence of the building. The strain upon his physical strength was too great, and the concert on Christmas eve, 1904, was the last that Theodore Thomas was ever to lead. The grippe from which he suffered soon changed to pneumonia, and at daybreak, January 4, 1905, he breathed his last.

In Theodore Thomas Chicago had one who was called by musicians of note the greatest conductor in the world. In interpreting the message of the composers he so drew from his players the most skilled and intelligent reading, that the audience was taught and came to understand the music. Thomas' mastery of men and of occasions was a great factor in his achievement, as was the splendid confidence that he felt both in himself and in his public. He was a man of strength and simplicity of character, of strong passions and marked control of them. These are some of the qualities, which combined with magnificent bodily health, brought him near to the final consummation of his noble endeavor. The beautiful music hall that stands on Michigan avenue is his monument, and his heritage to Chicago is one of the world's greatest orchestras, which plays to thousands of people educated by him to demand the best music and the most artistic execution of it.

CHAPTER LV

SCHOOLS OF THE PRESENT DAY

CHILD STUDY DEPARTMENT—PEDAGOGY AND MEDICAL SCIENCE—COMPULSORY EDUCATION—CHILD LABOR—TRUANCY PROBLEM—AGE LIMITATIONS—THE JUVENILE COURT—JOHN WORTHY SCHOOL—PARENTAL SCHOOL—CONDITIONS OF ENTRANCE—CRIPPLED CHILDREN—SCHOOL FOR APPRENTICES—VOCATIONAL SUBJECTS IN THE HIGH SCHOOLS—EVENING SCHOOLS—RECREATION CENTERS—VACATION SCHOOLS—MUSIC—DRAWING—PHYSICAL CULTURE—GERMAN—OPEN AIR SCHOOLS—ASSIGNMENT OF TEACHERS—TEACHERS' PENSION FUND—SCHOOL BUILDINGS—FRESH AIR CRUSADE—BUSINESS MANAGEMENT OF THE SCHOOLS—SCHOOL HOUSE FOR THE PEOPLE—THE SCHOOLS AT PRESENT.

CHILD STUDY

TO Dr. W. S. Christopher, a member of the board of education from 1898 to 1901, is due the credit of inaugurating in the public schools of Chicago the work of the department of Child Study and Scientific Pedagogy. The work consists of a scientific study of the child from the physical side. Careful measurements and tests were taken among the children of a school which was selected because it contained what may be called normal children—those whose parents are in comfortable circumstances and who are uniformly well fed and well clothed, and are mostly of American birth. By this means a series of norms or averages was established and could be used as a basis of comparison in measuring other children. Elaborate tables and charts are made out based upon the conclusions drawn after anthropometric observations had been made on a great number of children, and are of great value in determining the relation of mental capacity to physical characteristics. The conclusions drawn by Dr. Christopher after a series of tests made were:

1. In general there is a distinct relationship in children between physical condition and intellectual capacity, the latter varying directly as the former.

2. The endurance of boys is greater than that of girls at all ages, and the difference seems to increase after the age of 9.

3. There are certain anthropometric indications, which warrant a careful and thorough investigation into the subject of co-education in the upper grades.

4. Physical condition should be made a factor in the grading of children for school work, and especially at the entrance into the first grade.

5. The great extremes in physical condition of pupils in the upper grades make it desirable to introduce great elasticity into the work of these grades.

6. The classes in Physical Culture should be graded on a physical instead of an intellectual basis.

The work of the Child Study department is valuable in determining with great nicety and accuracy the efficacy of the part played toward the pupil's development by, for instance, the study of manual training. This accuracy of conclusion is arrived at by properly arranged sense tests in the hands of an observer whose psychological information gives him a full knowledge of the extent, varieties and the limitations of the senses under examination. Such examinations applied to groups of pupils furnish reliable data from which to judge of the value of work done for sense training, to determine the good and bad elements in the work, and in general to fix its pedagogic value, and therefore the commercial value, of the whole work or any of its parts.

Other features of the work make it of the greatest value in determining how to deal with those pupils of foreign parentage whose characteristic hereditary tendencies create a special school problem; in studying the characteristics of backward or defective children or truants; in testing the relative value to the pupil of afternoon and morning sessions, or of determining whether one or two sessions are best for pupils of a certain age.

The connection between medical science and pedagogy has long been established, and the recognition by the Chicago board of education that pedagogy must be approached through the medium of psychology and child study resulted in the establishment in its rooms of a psycho-physical laboratory. The objects and functions of the Department of Child Study and Pedagogical Investigation are thus outlined:

I. Research work, consisting of

a. Collecting anthropometric and physcho-physical data for the purpose of establishing norms, and for determining such relationship as may be of service in pedagogy.

b. Applying accurate scientific methods to special pedagogical problems, particularly methods of teaching, and determination of the pedagogical value of various studies.

II. Examination of individual pupils with a view to advising as to their pedagogic management.

III. Instruction given to teachers in child study and psychology.

BACKWARD CHILDREN

The ungraded rooms established in certain schools for the instruction of backward children, to which pupils are sent only after examination by the child study department, have lessened the truancy evil in the schools.

Chicago has the distinction of being the first city in the world to establish such a department, and much credit is given her by writers of those countries where education is considered of greatest importance. Dr. D. P. MacMillan is at the head of the department.

When a child is found by a teacher to belong, in all probability, to one or another of the groups for which the board of education has provided special facilities and training adapted to their needs, it is the duty of the teacher to report such a pupil to the Child Study department, acting in its capacity as bureau of information on special education. Besides the pupils sent by teachers for exam-

ination by the department, many others are brought by interested parents or guardians who wish to learn more of the special peculiarities of backward, unusual or specially gifted children. Moreover, by courtesy of the board of education, the services of this department have been in a number of cases extended to parents and guardians who are non-residents of Chicago, some of them coming from distant parts of the country.

At the present time, with the limited resources of the department in bringing to bear on each case, directly or indirectly, the proper influence for the child's betterment, and in following up all cases which demand attention, the work is necessarily partial, and without altogether satisfying results. "Were our educational system so equipped," writes Dr. MacMillan, "and our social life so organized that the requirements of each child could be satisfyingly met in line with his individual needs by providing the requisite physical care and training, the disposition of the children brought to this department for assistance could be carried out with more satisfaction to all concerned. . . . Needless to say, our institutions, public homes and educational facilities in the public schools, are totally inadequate to successfully cope with the social and educational problems confronting a department which is, in so large a measure, concerned with children which are essentially misfits, variants and exceptionals in a general scheme of education in a modern city. It is, however, a very essential first step in dealing with the problems of special children, to disclose the magnitude of the task of attempting to cope with the whole set of circumstances and conditions as they are." At present the task of the department must be to correct and remedy the cases demanding immediate attention, and to do everything possible under the circumstances in the way of prevention of bad conditions through prescribing a special course of educational treatment and mental hygiene. The establishment and maintenance of special classes or schools is now a recognized part of the general scheme of every progressive municipality, and in Chicago assignment of pupils to such classes is done after examination by the child study department.

Whenever a child needs special physical care and treatment, the child's parents or guardians, if their financial circumstances allow, are advised to consult the family physician; or, if this is impossible on account of the expense, to take the child to a public dispensary or to ask the assistance of the Children's Hospital society. Some children were treated free of charge by philanthropic physicians. The school nurses of the public school system co-operated enthusiastically and efficiently with the department in acting as intermediary between the school and the home, to insure that there is action taken to assist the child in gaining from his school experience all that his powers make possible.

Besides the work with children, the department directs the physical examinations given, with the assistance of the school medical inspectors, to all high school graduates entering Normal school, those receiving certificates to teach and those who receive additional new certificates.

It is the hope of the department to be able to increase its work still further in being able not only to prescribe and furnish more means for the education of children placed by circumstances at a disadvantage with their fellows, but to make a more exhaustive study of normal children, with reference to the gathering of

further data on the natural growth of children in bodily control and mental development.

COMPULSORY EDUCATION

The Illinois compulsory education law was passed in 1893. It was ineffective because there was no provision made for enforcing a penalty upon parents or children for disregarding it. The parents of truants could be notified and reminded of the law, but if they remained indifferent or deliberately kept their children from school, no further effort was made to enforce the law. The superintendent of compulsory education and the fifteen truant agents that were appointed after the law was passed accomplished their main purpose merely by watchfulness and persuasion. A large number of children were found begging on the streets, mostly girls between the ages of ten and twelve years, and for these but little could be done, as their parents were anxious for the money they begged, and utterly indifferent to their welfare. Incorrigibles were also beyond the management of either truant officers or parents.

On the contrary, it was found in many instances, after visiting the homes of children who were out of school, where poverty and its evils prevailed, that help furnished by charitable organizations or by individuals made it possible, as it had not been before, for the children to be sufficiently clothed to go to school.

A new compulsory education law of 1897 increased the period of compulsory attendance from twelve to sixteen weeks, and enabled truant officers to enforce the regulations. As a direct result of the enforcing of this law, provision was made by the Illinois legislature for a parental school, where truant and incorrigible children under fourteen years may be placed for varying periods.

Through the activity of the compulsory education department the sale of tobacco to the school children in school supply stores was checked, and surveillance by truant officers and police of "catch penny" stores near school houses is maintained; the keepers of such stores are warned against encouraging gambling and truancy among children.

One branch of the work in this department is that of bringing the crippled children to and from school in buses furnished by the city. Still another branch of the department is the medical inspection of schools for the prevention of the spread of contagious diseases. Not only does medical inspection do much to prevent the spread of disease in the schools, but it helps to disclose to the city health department attempts to conceal the existence of such diseases in homes to which the truant officer goes to investigate the cause of absence. The emergency corps system obtains, by which principals call for a medical inspector, whenever needed, and an inspector is immediately sent to the school where his services are desired. Formerly there was a general medical inspection system in the schools, according to which a large number of inspectors were on duty, each of whom was given a district containing a group of schools which he regularly visited. The present system is efficient and is a great saving of expense to the board. The prompt service of medical inspectors, followed by their thorough fumigation of infected school rooms, has helped to check the spread of contagious diseases in the schools. In addition to making calls when summoned, the inspectors conduct physical ex-

aminations of crippled children, boys committed to the parental school, and pupils who are track athletes, and members of football and baseball teams.

TRUANCY PROBLEM

Truancy is often stopped in individual cases when it is found possible to improve the physical condition of the homes of the children whose absence is investigated. One excellent method of preventing it is the promptness of the department in sending a truant officer to investigate an unexplained absence after the pupil has been out of school for four days. This vigilance prevents thousands of children from developing into habitual truants and reminds parents not to become lax in sending their children to school.

According to a law passed in 1903 the period of compulsory attendance was extended to coincide with the school year, and the prosecution of indifferent parents was provided for. The child labor law excludes children of premature working age from the factories, and punishes employers who violate it; the Juvenile court and Parental school laws punish the habitual truant and delinquent, but the compulsory education law is the only one that imposes a penalty on parents, and parents are, in most instances, the real culprits. All the corrective institutions of the city, county and state could effect little if nothing were done to strike at the root of the juvenile evil—the negligent parent. When the children are paroled back to homes where parents are indifferent, they would probably soon become truants again were it not that the parents are now made to feel their own responsibility in maintaining the standard of regularity and correct habits. In the prosecution of parents it is the custom of the department to give a warning notice when they keep their children out of school in violating the law. If the warning notices are heeded and the attendance thereafter regular, no prosecution follows, but if the warning is disregarded the parents are immediately brought into court and fined. Since the greatest evils with which this department has to cope are the indifference of parents, and poverty, so the greatest factors in increasing school attendance and in checking truancy have been the prosecution of parents under the compulsory education law, and the enforcement of the child labor law. A decided advance in placing the responsibility for regular attendance on the parents is that by this system a greater degree of paternalism of the state is obviated by compelling lax paternalism in the home to comply with laws that safeguard childhood and assist materially in maintaining the standard of enrollment and attendance at the schools.

Most of the truants come from the four lowest grades. They are usually boys who have outgrown their classes physically, while lagging behind mentally. There are not enough ungraded rooms in the public school system at present, so there is not a chance for the dull boy to take studies especially adapted to his ability, and so, hating to be in a "baby class," he becomes a truant. There are many boys of twelve to fourteen years of age in the primary grades; and on the other hand, comparatively few from the seventh and eighth grades are sent to the corrective institutions. The delinquents, habitual truants, and incorrigibles come from grades where there is no manual training. In the John Worthy and Parental schools manual training forms a large part of the work and is seen to be the very thing needed for most of the boys. The obvious moral to be drawn is that the school

By courtesy of the Board of Education

SCHOOL FOR CRIPPLED CHILDREN— READY TO GO HOME

is more attractive and appeals to the greater interest of boys when the industrial is included with the academic in the curriculum.

AGE LIMITATIONS

A recent school attendance law increases the compulsory attendance age to include children between fourteen and sixteen who are unemployed; also to eliminate a further cause of truancy, the parochial and other private schools of the city have by special arrangement been included within the service of the compulsory attendance department, and much better results obtained. It is no longer possible for a pupil to elude the department by taking refuge in the conditions of first one school system then another. Children are often seen on the streets during regular school hours, which is accounted for by the fact that they are either among those who are in half day sessions, or are enjoying a holiday given by the private school which they attend.

There is a loop hole for the truant who is between the ages of fourteen and sixteen years, and unemployed, for no boy over fourteen years can be committed to the Parental school, and until the Parental school law is made to conform with the school law, which fixes the maximum age for compulsory school attendance at sixteen years, there will be nothing to do with a truant between fourteen and sixteen years, who is beyond the control of teachers and parents, is not employed and is not sufficiently bad to be sent to the John Worthy school or an institution for delinquents.

The causes of truancy are found almost entirely to be improvidence, hunger, uncleanliness and intemperance in the home, which also produces the dependent, the backward, the sub-normal, and underfed child. Wife desertion is a growing cause of truancy. Usually when a woman is left by her husband she has a large number of children to care for. She leaves them all day, generally with little to eat, and with no means of having it properly cooked. The children of the family, usually the oldest girl, do the cooking, and do it poorly. It is a result of investigation that many more suffer from malnutrition due to improperly cooked food, than to actual want of food. For this reason domestic science is strongly recommended by school authorities as a necessary factor in juvenile reclamation. Besides this evil of malnutrition other causes of truancy and delinquency are marital discord, separations, negligence and conflict of parental authority. This but indicates the deep rooted evils that must be removed to eradicate the one evil of truancy.

In the school year ending June, 1910, the truant officers looking after attendance interests in general investigated 56,997 absences from school—public and private—including repetitions; and pupils temporarily absent for various causes, as well as truants. Of this number 4,409 absences were due to truancies among 3,614 truants, which is substantial evidence that repetitions of truancy have been materially decreased. The department conducted 785 prosecutions during the year; of this number 647 were prosecutions in the Juvenile court of which 511 resulted in commitment and 236 were released on probation. In the municipal courts 138 parents were prosecuted.

As a result of the activities of this department great improvement is shown in

decreasing truancy and the tendency toward it, in spite of the growth of the city: and in the decrease of illiteracy. In charge of the department is W. L. Bodine, Superintendent of Compulsory Education.

CHILD LABOR

The Child Labor law, enacted and made effective in 1903, unites with the compulsory education law in securing the attendance of children at school. By its provisions children under fourteen years of age cannot be employed at remunerative labor, and the employment of those between fourteen and sixteen years of age is regulated; no child between fourteen and sixteen years of age may be employed over eight hours a day, and before being employed he must first receive an age and school certificate approved by the superintendent of schools. The certificate contains a statement of the date of birth of the child as shown on the school records, and is sworn to by the parents or guardian. A duplicate of each certificate must be furnished to the state factory inspector, in whose office the certificates are issued by a representative of the superintendent of schools. Evasions of the child labor law are frequently attempted by parents who swear falsely to the age of their children in order to hasten the time when they may become wage earners. Children over sixteen years of age can be worked more than eight hours a day, and require no age certificate. From this has resulted the false affidavit system which the authorities have had to contend with.

THE JUVENILE COURT

The Juvenile Court was established in 1899, in charge of Judge Tuthill, as a result of the Juvenile Reform law providing for such a court, as well as for a parole system and probation officers for looking after truants. The court deals with young boys who are arrested for offences against the law, including those taken by the truancy officers. The court is effective in carrying out the provisions of the compulsory education law. When a boy is brought into the Juvenile court, if his is a first offense he is paroled by the judge to one of the industrial rooms in the public schools for a specified time, and goes home every evening. A probation officer is in charge of him, whose duty it is to watch his attendance at school. If he breaks this parole and is brought before the judge a second time he is sent to the Parental school. Those brought before the court for other offences are sent to the John Worthy school or to one of the public reform schools.

Certain cases of delinquency or dependency the judge of the Juvenile court sends to the Child Study department for the purpose of solving problems centering around the mental status of the boys and girls to be examined. When this department has discovered the normality or abnormality of the minds of such children, and the causes of heredity or environment which have induced the conditions which obtain, suggestions are made to the court as to the measures to be adopted in dealing with the case in question. The establishment of ungraded and industrial rooms in the schools has reduced the number of arraignments of such children by appealing to their mental aptitudes and acting as a preventive of truancy or delinquency.

JOHN WORTHY SCHOOL

In the school report issued in June, 1896, there is mention that during the year past two teachers were employed at the Bridewell to teach the boys in that institution. A building was erected for school purposes in connection with the Bridewell and was named the John Worthy school in memory of Hon. John Worthy, who was for several years one of the Bridewell commissioners. This building had six class rooms, two large machine shop rooms, a painting room, a drawing room, wash rooms and an office. The school was organized in the fall of 1896 with a principal and six assistants. It must be noted that even at the present time the school does not include a dormitory, so that the boys are still housed with the older criminals.

This school is connected with the city Bridewell. Boys under sixteen years of age who are sentenced to the Bridewell are now put in the John Worthy school instead of being thrown into the company of older offenders. Before the establishment of a Juvenile court in 1899, and the passing of indeterminate sentences upon the boys, the average length of time for which each pupil was sent to the school was thirty days. Since the Juvenile court has been in existence, with Judge Tuthill presiding, an indeterminate sentence is usually passed and a pupil is kept in the school until in the judgment of the principal he is ready to be released.

About one-half of the time in the school is devoted to manual training and manual instruction in various other forms, other instruction including classes in the work of the eight grades of the elementary schools. The educational life in the John Worthy school, however, presents a striking contrast to that of ordinary schools. "The attendance at school exercises is emphatically compulsory," wrote Robert M. Smith, the first principal. "Every boy committed to the school is, on his arrival, straightway examined and assigned to school work suited to his present capacity. He has no choice about this. He must belong to the school and do some educational task from the time he enters till he leaves. When one considers that out of every one hundred arrivals about eighty have good natural capacity, and none have education above the merely ordinary, it will be seen that with these boys the voluntary system has been a failure. In this school, what a boy can do he must do; and what he must do, he does do. As the average period of detention is but a few months, time is lacking to pursue the regular course of study as prescribed by the Board of Education. Omissions are necessarily made, not only on account of lack of time, but because the knowledge gained by the study would be of comparatively little value to the boys, and the peculiar discipline afforded by a study is obtained by the thorough mastery of a part of that study.

"Elementary shop work reaches all the pupils, though the advanced work is taken by but a small proportion. Promotion to the advanced course rests on ability and attainment, and boys who receive it give some promise of becoming good mechanics. Although the one who has completed the elementary work may never become a skilled mechanic, he has gained much in hand skill and learned invaluable lessons of a moral nature."

Under the direction of the Child Study department, measurements are taken of the boys in the John Worthy school, and by comparing the results of these measurements with the norms obtained by measuring normal children, it is found that

the boys in the John Worthy school are inferior in all the physical measurements taken, this inferiority coming from malnutrition, and seeming to increase with age. The age of pupils assigned to the first grade ranges from nine to fifteen years, and a very large proportion are either foreign born or the children of foreign born parents. The close relation between mental, moral and physical culture and development is nowhere more apparent than in the John Worthy and Parental schools.

In spite of the immensely improved methods of dealing with the boys sent to the Bridewell when the John Worthy school was established, there was still much improvement to be made in the management of the young offenders. Except for the five school hours when they were employed in study and manual work, their time was spent in the care of the guards. Their natural tastes did not turn them to books, and there was not manual training equipment enough in the school to keep them busy at this course, which all preferred to other studies. A change was therefore made in management so that a force of teachers is employed under the name of "family officers." These are to take care of the boys before and after school hours, and keep them continuously employed either in the work shops, in summer at farming, or at their games. The teacher thus takes the place of the prison guard, and there is the wholesome atmosphere of freedom and constructive activity, instead of repression, idleness and rebellion. To carry out this plan and for the purpose of employing as many boys as possible, an additional manual training shop and a foundry were erected. The building also permitted the installation of a gymnasium and a printing shop. The prison wall was changed so that about five acres of farming land became available where boys receive lessons in agriculture.

Still the boys are under the dual authority of the city prison system and the school system, a state of things which seriously interferes with the work. Effort has been made, though so far unsuccessfully, to get legislation that would enable the Board to erect a suitable building on some tract of land within the county. As youthful delinquents are state charges, it was considered fair that a certain state subsidy be obtained that would cover all costs arising in the conduct of the school above those of education.

PARENTAL SCHOOL

In 1897 the superintendent of schools made the following recommendation, after speaking of the work of the John Worthy school: "Could such a building and a suitable home be provided for the boys and girls who have no parental control, who are turned out of school because they are insubordinate, and have not yet become criminals, many could be saved to honorable and useful citizenship instead of carrying forever in consciousness the brand of 'Found Guilty'—'Sent to the Bridewell for thirty days.' Will it cost any more to care for them before they become criminals than after?"

Action in the form of a law passed in the Illinois legislature finally resulted from Superintendent Lane's repeated efforts to arouse the board of education to a recognition of Chicago's negligence of the children who, defying parental and school authority, are likely to grow up in ignorance and crime and in many cases to be ultimately arrested and supported by the state unless some vigorous measures were taken to save them. This law, passed in 1899, required the board of educa-

tion to establish a parental school within the next two years, and to build, furnish and maintain it and prescribe its courses. It provided that truant children under fourteen years of age should be committed to the school for varying periods; that children may be released on parole; that incorrigibles may be sent to a reform school; that the school must not be erected near a penal institution.

The board of education promptly set out to comply with the provisions of the law. Mr. Thomas H. MacQueary was chosen superintendent after a careful search for an examination of available candidates specially qualified for this important work. After his election, on recommendation by the committee on compulsory education, he was instructed to visit reform and home schools throughout the East and carefully investigate the systems there in vogue. Since all logical reform work with truants must in a large degree include manual training and constructive work, the supervisor of manual training was directed to accompany the superintendent of the Parental school on his tour of inspection and investigation.

A full report on the institutions visited was made, and recommendations offered regarding the conduct of the school. Emphasis was laid on the importance of physical culture and manual training. It was suggested that the course of study conform more or less closely to the course of study used in the public schools, but that they should be more elastic than the regular course to meet the special needs of these pupils, whose truancy is often due to their distaste for the regular school work.

The school was built at Bowmanville on a tract of land comprising sixty acres in the northern part of the city, later increased to eighty acres. On January 31, 1902, pupils were first received. Besides the cottages and main school building, suitable farm buildings have been erected, including a dairy plant where the boys help in the work. The fields included within the school tract, which were semi-swampy at first, are being underdrained with tile as rapidly as possible, greatly increasing the productiveness of the farm, part of which is cultivated by the boys.

The children, whose average age is eleven years, live in cottages, in families of a limited number, in order that they may have the advantages of being in a home, and subject to its beneficient influences, as well as of attending regularly to school duties. The lack of decent homes is the cause of many cases of truancy, and filling that want is often the most effective way of doing away with the aversion to school work. The special studies taught in the Parental school are manual training, horticulture, gymnastics, military tactics and music. As the manual training or industrial side of the work has been extended, a corresponding reduction has been made in the energy expended in what is commonly called government or discipline.

In accordance with the "Rules of Discipline" adopted by the board of education, the school is divided into three divisions. When a boy enters the school he is placed in the second division, where he must remain at least a month, and then he is promoted or reduced, according to his conduct and progress in his studies. After remaining in the highest division for three consecutive months, he will be recommended for parole to his home school. No corporal punishment of any kind is allowed. Deprivation of privileges, assignment of "extra duty," and solitary confinement in a well lighted and well ventilated room for a period not to exceed

twenty-four hours are the only forms of punishment practised, and these have been said to be sufficient to accomplish the desired result.

CONDITIONS OF ENTRANCE

Upon entering the school each child is examined by a physician and reports are made on his case and given to the teachers and family instructors having charge of the child; when necessary, pupils are fitted with eye glasses. There are five grades, the boys of the first and some of those in the second being put into what is practically an "ungraded room." The instruction given is the same as that given in other public schools. It has been found that many of the pupils sent to this school are reported as belonging to a grade higher than that which they should be in, and this doubtless partially accounts for their truancy. Being required to do work which is too hard for them, they become discouraged and play truant. On the other hand, if they are kept in one grade too long they become ashamed of it, and play truant rather than continue to go to school with smaller and younger children. It would seem therefore that an "ungraded room" in every school would prevent a certain amount of truancy.

Manual training is a prominent part of the school work. One hour a day is set aside for wood work and other forms of construction. When the weather permits, one hour daily is given each boy for work on the farm and in the garden. Each boy has the sole care of a plot of ground, where he works under the direction of his teacher. Upon this plot he plants, cares for and harvests a crop of vegetables. There is a dairy which not only is used for educational purposes, but is also a source of revenue. Two to three hundred quarts of milk a day are produced. Everything about the dairy is modern, and the milk is handled with the utmost care from the standpoint of cleanliness and sanitation. The cows are healthy, and well cared for with the aid of the boys. There are about six hundred chickens, some of them in chicken houses belonging to individual cottages.

The physical development of this class of children being of the greatest importance, other means of strengthening them are taken. As many children come to the school underfed or not well fed, plenty of wholesome food is given to them. Another means of developing their physical growth is well directed military and gymnastic work. The school is organized into three companies, which have daily drills; these drills, aside from their value in physical development, are a most effective means of discipline. The gymnastic work consists of calisthenics, work on the apparatus in the well equipped gymnasium, and recreation. Throughout the year assignments of boys are made for an occasional day to the kitchen, laundry and farms.

The religious instruction given is in accordance with the Parental school law, which provides for the organization of three Sunday schools—a Jewish (which meets Saturday afternoon), a Catholic and a Protestant school. Instruction is given in accordance with the belief of the children's parents.

The average period of time for pupils to be held in the Parental school is six and one-half months, the minimum term being a little less than four months. The time of parole is determined entirely by the pupil's behavior and the quality of his work. Boys are encouraged to earn their parole as soon as possible so that

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PARENTAL SCHOOL—GENERAL VIEW

they may not become institutionalized, and in order to make room for others on the waiting list. Opposed to the idea of short periods of residence in the Parental school are those who argue that if the conditions found in the Parental school—conditions favorable to regularity of work and correct habits—could be continued until the boys reached the age of sixteen years, and were given some suitable, permanent employment, a useful and honorable career in life would be assured to practically all the boys committed to the school.

After the pupil has left the Parental school and returned to his home school, careful attention is paid to his attendance and work, and reports of his progress are sent by his teachers to the Parental school. If these reports continue good for a year the boy is recommended to the board of education for discharge from the custody of the Parental school. During the period of his parole the pupil may be returned on the order of the superintendent of the Parental school for violating the terms of his parole. Less than one-fifth of the boys are returned, the rest making a record from fair to excellent in their home schools.

In March, 1907, the board of education authorized the establishment of industrial rooms for truants in three of the public school buildings. These rooms are to a certain extent experimental. When a boy is brought before the Juvenile court for the first time he is paroled to one of these schools for a specified time, but goes home every evening. If, however, he breaks this parole and is brought before the Juvenile court again, this being his second offence, he is sent to the Parental school. Instruction in manual training is one of the leading features of these industrial rooms.

The Parental school arose inevitably from the necessities of efficient compulsory education. It is the aim of those in charge to conduct it strictly as a school, not as a penal institution. In avoiding this latter evil of management, care has been taken not to allow it to acquire the reputation of being an elegant boarding school, where parents may, for a season, be relieved of the care of their offspring. Its main object is to deter those inclined to truancy and incorrigibility; an effort is made to form the school-going habit and to interest boys in their studies. As one of the first necessities in this corrective and constructive process, the boys are built up physically through exercise, regular habits and nourishing food; the temptation to use cigarettes is removed and real work is insisted upon. It is the opinion of the teachers in the school that the boys compare favorably in many respects with the boys in the ordinary elementary school. A large majority of them, after the instruction and discipline received here, return to their schools and become studious and obedient pupils. During the school year ending in June, 1910, 504 new boys were committed to the school by the Juvenile court. The average membership was 297. The cost per pupil in the Parental school for the year 1910 was $299.82, in the John Worthy school $218.38, as compared with the average total cost per pupil of all the Chicago public schools of $33.87, including the Teachers' college, the special schools and these two under discussion.

CRIPPLED CHILDREN

"It remained for Chicago to lead the world in placing the free transportation and the education of crippled children in the public school system." Such provision

for these children was first made in 1899 as a result of the enforcement of the compulsory education law. Classes for them were established in two centers, with four buses in service to take them to and from school each day. There are now ten buses in commission, and with each one is a driver and an attendant, furnished by the chief of police; the attendant helps the children in and out of the bus, carrying them to the door step when necessary. In the middle of the day a hot luncheon, which has been prepared at the school, is served to the children. In many cases the children who are brought to the school are underfed and would be unequal to the tasks set them were it not for the sustenance thus provided.

The educational work prescribed for pupils of the Crippled Children's schools embraces the regular course of study. However, special emphasis is placed upon varied lines of constructive work which appeal to the interests of the children, and which lay the foundation for a recognition of their own powers and open the way for some future employment adapted to their needs. A pupil is admitted to these classes only after examination by the child study department, to determine his mental status, as well as by the regular medical inspector from the city health department. In these schools are frequently those who are temporarily crippled and who under surgical treatment can be restored to fairly normal conditions of life. As soon as such pupils are able to mingle with the children of their own home district they are removed from the Crippled Children's school.

SCHOOL FOR APPRENTICES

Provision was made by the board of education in 1901 for extending school privileges to apprentices of the masons and bricklayers associations. Pupils who attended the classes organized ranged in scholarship from those who had studied one or two years in the high schools, down to those who read English with difficulty. Many who have entered the classes since then have not been able to speak English when they started.

Legal support was given the school in the passage of an act by the Illinois legislature in 1903, providing that when indentures are drawn, "in all municipalities where a manual training school is maintained for the technical instruction of apprentices, such indentures shall further provide that it shall be the duty of the master to cause the apprentice to attend such school for a least three consecutive months in each year without expense to the apprentice." The unions approve of this plan, and to a certain extent co-operate with the school authorities in securing attendance at classes. Up to the present the course has consisted of mechanical drawing in addition to the ordinary subjects of the sixth, seventh and eighth grades, in which divisions the pupils have all been roughly classed owing to lack of sufficient number of teachers. Lectures have also been given in anatomy, physiology, and first aid to the injured, and on architecture, masonry, building and superintendence, fireproofing and fireproof construction, terra cotta, and the manufacture and use of steel.

A serious attempt has been made within the last two or three years to establish continuation schools for the benefit of the children who have left school at fourteen to become wage earners. It is the hope to receive the co-operation of employers, and make it compulsory upon these young workers between the ages

of fourteen and eighteen to attend such schools from six to ten hours weekly in the day time. The evening schools draw their attendance from the stronger, more ambitious class of workers; those of average strength do not attempt, after an eight-hour working day, to go to school in the evening, so it is sought to make other provision for the instruction of young workers of average ability and strength to be offered the advantages of further education at such hours of the day when they are not too tired with work to profit by what they study. The course in such continuation schools would be laid out with reference to the particular needs of the pupils attending, that their studies might supplement their work. Although such a school has not yet been started, it seems inevitable in the near future.

VOCATIONAL SUBJECTS IN THE HIGH SCHOOLS

A recent progressive step taken by the board of education is its provision to include certain courses in the high school curriculum which will be of especial use to those who do not intend to go to school after leaving the high school. This is an extension of the former range of the course of study, which for many years was laid out with reference to the entrance requirements of colleges. "After many discussions between college and high schools faculties and many protests by the latter," writes the superintendent of schools in her report for 1910, "the high schools in the Middle West and in New York City are asserting themselves against the restriction of their work by the requirements of the college. It is hoped that the outcome of the discussions and protests will be not so much an increase in the number of electives that may be presented by an applicant for admission to college as a decrease in the number of subjects, not credits required for graduation from the high school. The high school course on account of the large number of subjects that it permits a pupil to carry simultaneously often tends to develop habits of dissipation instead of concentration of energy. Because the work in vocational subjects such as cabinet making, forge and foundry practice, stenography and typewriting, accounting, and correspondence follows the plan of the high school outline in preparation for admission to college, it is not sufficiently intensive in the early years to make it possible for those who can spend only one or two years in the high school to avail themselves of the high school course during those years, and consequently they withdraw in large numbers to the shops and business colleges." There is now in the high school curriculum provision for nine two-year courses in which the vocational aim is recognized to the extent of offering a fuller equipment than that given by the short course special schools outside. These nine courses are so planned that all work done successfully in them will receive credit toward graduation for boys and girls who find at the end of two years that their interest is so great, or that home conditions have become such that they can remain to complete a full four-year high school course.

With this broadening of the scope of the high schools in Chicago and the further hoped-for development in technical and commercial training, the high schools may be considered the colleges of the people and will have as their direct result and ample justification a higher and worthier type of citizenship exemplified in the great numbers who annually graduate and take their part in the activities of the city.

EVENING SCHOOLS

The problems involved in the conduct of evening schools in Chicago demand the highest order of expert management. The attendance in these schools is made up almost entirely of those who work all day, a large proportion of whom are foreign born, and with a limited understanding of English. The need of the greatest part of these is instruction in speaking and writing the new language. In some districts of the city where there are many people who do not speak English the schools are composed largely of men and women who are learning to read and write our English. The teaching of English to foreign speaking people is and probably will long continue to be the most important part of the evening school work in Chicago: the problem is to give the people the greatest possible means for expression. After this need is met there must be instruction given in those studies which will be of greatest practical good to the student, such as commercial branches, manual training, domestic arts, and mathematics. The evening school courses include elementary and high school work, and allow freedom of elective wherever possible. On account of the problems involved and the necessary flexibility in arranging the work, it is impossible to grade the evening pupils exactly as day pupils are graded. However, the day school grading is followed as closely as possible, and to such an extent that the card of credit issued by the evening school teacher will admit a pupil to the day schools if he wishes to make the change.

Effort is made to keep the evening students in school for more than one year. When foreign speaking pupils come back to school a second or a third year it becomes possible to shift the emphasis from the expression to the subject matter; when this point is gained, serious and thoughtful work can be done by the pupils.

For many years the evening schools were taught by instructors who were not regularly trained teachers, and the results were far from satisfactory. It takes the highest order of teaching ability to present a subject intelligently and attractively to those who do not readily understand and use our language, and to hold the attention of those who have already done a long day's work. For this task the regular day school teacher, with her pedagogic training and experience under normal conditions, is far better fitted than the teacher who is employed only for the evening school work and whose main interest lies in some other profession. Much disorder in the evening schools was due to the fact that the people in charge of them were not trained teachers, but were struggling lawyers, doctors, clerks and bookkeepers, who were burdened with the intensity of commercial life during the day, and whose interest in the schools was transient. In the last few years the holders of evening school teaching certificates are placed on the same footing as the teachers in the day schools, which limits the choice of evening school teachers largely to the day school teachers, but insures the best available talent for the work.

The present total enrollment in the evening schools of Chicago is about 20,000. Sessions are held four evenings a week in various public schools as centers throughout the city, for a period of four months every year. The department is in charge of one of the district superintendents.

RECREATION CENTERS

Distinct in aim from the evening schools are the recreation centers which have been established recently, to be open during a large part of the school year. The

CLASS OF CHINESE LITTLE—JONES EVENING SCHOOLS

By courtesy of the Board of Education

first one was opened in 1909, and later provision was made by the board of education for the establishment and maintenance of recreation centers in different parts of the city. The principal, Miss Azile B. Reynolds, gave her time to the center, and money for equipment and for the employment of assistants was privately furnished. The Juvenile Protective League co-operated both financially and socially toward the success of the center. Library facilities, gymnastics, sewing, lectures, social dancing and music were offered to those who attended. The distinctive gain has not been so much what was learned as in the social and moral conditions that were made attractive, and that tended to draw the young people from the more dangerous class of amusements which they were likely to frequent.

VACATION SCHOOLS

"One of the most beneficent and wisely conducted charities of the city are the vacation schools," wrote Dr. E. Benjamin Andrews in 1899, when he was superintendent of schools. "They take children of the congested districts from the hot, dirty streets and crowded houses to spacious and airy rooms, where their emotions have vent in music, their minds are delighted and instructed by nature study and constructive work, and their bodies developed by careful gymnastics. Excursions to the parks, to the country, to swimming schools on the lake, give them glimpses of new and larger environment, at the present a pure happiness, for the future a beckoning vista." The work of the vacation schools is based on the principle that in a great municipality guardianship over the children should not cease with the end of the school day nor the close of the school year, and that after the regular day's work and year's work is over, there should still be opportunities offered to the children for constructive work and well directed recreation.

In the summer of 1897 the Women's clubs of the city made provision for the expenses of four vacation schools and the board of education granted to those schools the use of buildings and equipment. Funds were thereafter contributed by the Women's clubs, by individuals and by the board of education. In many minor ways, as through the aid of the public school principals in the selection of teachers and cadets and the choosing of the proper pupils from among the children who applied, the co-operation between the public schools and the vacation schools increased yearly. Such co-operation continued until the summer of 1909, when provision was made by the board to carry on the work entirely at public expense. In 1909 seventeen regular schools were opened for a term of six weeks, and in addition classes for the deaf were held at the Normal Practice school and accommodations for crippled children were provided at two other schools. Over 13,000 children were enrolled in that year in the vacation schools.

The instruction given the children is chiefly that which brings into play the motor activities. Books and the usual school accessories are for the time discarded and the creative powers are directed through such channels as will give to individuality a wider range and to the constructive impulse a more liberal opportunity. The work is mainly industrial, including the handicrafts and arts. The curriculum contains manual training, paper and raffia construction work, sewing, cooking, physical training, art-reproduction, rote music, and nature study. Each child goes on a certain number of excursions in the course of the summer. In the teaching

of personal, domestic, and social hygiene the schools have been ably assisted by volunteers from the Visiting Nurses Association, who give valuable instruction in the varied duties of home life and in the care that is essential to the physical and moral well being of the household. To quote the words of John D. Shoop, the assistant superintendent in charge of the vacation schools, "The program of the Vacation School has grown out of the belief that under the stimulus of a healthful interest *work* may be made recreative and that even to the child the joy of achievement in constructive effort brings to the hour for play a buoyant and exhilarating spirit, sufficient freedom is granted to the children during the progress of plays and games to encourage spontaneity and initiative and to avoid the conventional attitude and mechanical movement which too frequently are the results of over-direction during the hour of recreation."

MUSIC

The regular instruction of music began, as we have seen, in 1863-64. From then until 1874 music was required in the grammar grades, and the results gained in a high grade of vocal ability and a forming of musical taste, were extraordinary. Then, in 1874, it was made optional in all the city schools, a change which at once lowered the standard of singing in the schools and lost to the chorus work some of its essential singing parts. For several years after music was again made a required study and credit for it given in graduation, the effects of this retrogressive step were felt. Since then, however, the benefits and delight derived from the music teaching both by teachers and pupils, are generally acknowledged.

The qualifications of special teachers are rigidly tested, and a course of instruction is now provided in the Normal school for the preparation of these teachers. There are at present five special teachers of music in the elementary schools. This limited number makes it impossible for a music teacher to visit the schools assigned her for supervision except on rare occasions. The regular grade teachers give the musical instruction and their work is inspected and supplemented during the visits of the supervisors. In addition to these visits, instruction is given to the grade teachers through institutes, meetings in the various schools, normal classes, and through individual instruction given during office hours at the Board rooms each afternoon in the week after school. The May Song Festivals, which have been given during the past few years, have come to be an institution recognized by the board of education. These song festivals are given in various centers through the city by the special teachers and are attended by teachers and parents. They have been the source of hearty enjoyment by the children and are considered of great educational and sociological value. An increasing interest on the part of the boys throughout the city has been one of the pleasing aspects of the development of this department.

DRAWING

In late years a change has been made in the teaching of drawing from the early method of having a special teacher, interested in her one line of work, who came in to the school room on certain days to give instruction in drawing. There are still special teachers, but their work is rather to direct the drawing instruction

MACHINE SHOP AT THE ALBERT G. LANE TECHNICAL HIGH SCHOOL

By courtesy of the Board of Education

of the regular grade teachers, who correlate their pupils' drawing work with their other studies as far as possible, thus making it a part, not an addendum, of the school work. The special teachers inspect and criticize the work of the pupils, and meet the grade teachers in institute classes. They also consult frequently among themselves for the purpose of keeping in touch with each other and with the best methods of interpreting the study course and of relating the art work to the general course of study, as well as to the development of the child as a whole. The aim of the department in teaching drawing as outlined by the special teachers in 1910, is to agree on the fundamentals of subject matter, technique, presentation and criticism in interpreting the study course in the schools, to uphold a reasonable standard in each grade throughout the city, and to encourage adaptation to local conditions and correlation with other subjects in the curriculum.

PHYSICAL CULTURE

Since 1875 much attention has been given to physical culture in the Chicago public schools. At first the exercises were given by the grade teacher, who conducted them from three to five minutes a day. Then with the appointment of the special teacher the exercises were arranged by grades, and according to the pupil's strength and needs. In 1894 the first high school installed apparatus for heavy gymnastics, and soon afterwards the first grammar school was equipped with a gymnasium. Applications were then made by many teachers and principals for gymnastic equipment in their schools, and as many schools as possible were given apparatus for heavy gymnastics; additional special teachers were appointed to visit such schools regularly and oversee the instruction given by room teachers and principals. During the past fifteen years excellent gymnasiums were made part of the new buildings that have been erected. For the teaching and directing of games in the schools, teachers' institutes were first held in 1905. The field days held in some of the high schools were successful in quickening the interest of both pupils and parents in the work of physical development. In certain playgrounds, heavy, strong apparatus has been erected, which will withstand the ill treatment which it often receives when the gymnastic work is not directed and the playground is left to the undirected activities of any who may chance to go there.

Manuals describing, illustrating and grading the exercises are used in connection with the physical training in the schools, which consists of light and heavy gymnastics, and games. Because of the inability of the most of the teachers to direct the heavy gymnastics, the solution of the difficulty was found to be the preparation of the teachers in the Normal school; the need for an adequate gymnasium for that school was therefore urged upon the board of education. Such a gymnasium has recently been provided for the Normal school.

The time now allotted for physical training is ten minutes a day in the grades, and in the high school one hour a week. This is well known to be far too little and to place Chicago behind almost every other large American city in its progress in this line. Suggestions are made to have more special teachers appointed (there are now thirteen assistants to the supervisor) and to provide women teachers for the instruction of girls in the high schools.

GERMAN

The study of German, introduced into the schools in 1865, became increasingly popular as the schools grew, and was elected particularly by the children of German born parents. At first it was optional in the primary grades, and later was restricted as an elective to pupils in the fifth grade and above. With the great number of educators in this country and abroad in favor of including modern language study in the school course, the policy of maintaining the study of German in the Chicago schools had many supporters, and in 1901, it was first taught in the Normal Practice school in order to train special teachers in presenting the subject. By 1902 fifty per cent of the elementary pupils in the public schools were taking German. Then arose a clamor that the time and effort expended on German by these pupils was detrimental to their other studies. Certain ones of the board of education, hearing of this, joined in the complaint, and have gradually succeeded, by 1910, in reducing the number of elementary pupils of German to about two per cent of the number in those grades.

OPEN AIR SCHOOL

One of the most interesting of the Chicago public school activities is that one recently undertaken when an open air school was started at the Harvard school building during August and part of September of 1910. "Our object," reported the principal, William E. Watt, "was to benefit the children sent to us and to make a demonstration of what fresh air during the day and proper food will do for children predisposed to tuberculosis." The Chicago Tuberculosis Institute cooperated with the board of education and supplied food, carfares, nursing and cooking.

The experiment, short as it was, showed that the children improved mentally as they had never done before; that even in the hot summer, there was an average increase in weight of four pounds each; that with delay in starting the school and its short duration, still the work was successful.

ASSIGNMENT OF TEACHERS

All regular teachers as well as substitutes, are required to hold valid certificates to teach in the Chicago public schools. These certificates are secured in two ways —by graduating from the Chicago Normal school, or by passing the examination for certificates. A list of candidates for positions is kept, on which the names are placed in the order of efficiency. This efficiency mark is given to graduates of the Normal school by counting the average at graduation one-half and the service as cadet as one-half in making up the final mark. In the case of experienced teachers who come from other school systems and secure Chicago school certificates through examination, the examination mark counts one-half and the mark given by the principal of the school in which they substitute during the probation period of four months counts one-half. The adoption in recent years of this method of assigning teachers places the teaching positions in the Chicago public schools out of the possibility of interference in appointments or transfers through outside influence, political or personal. By vote of the board of education in 1902, all teach-

PHYSICAL CULTURE—1933. BRILL, WALTER HIGH SCHOOL.

By courtesy of the Board of Education

ers who were then in good standing and were regularly assigned as teachers were formally elected with the understanding that their positions should be permanent during efficiency and good behavior and their elections as teachers should be merely confirmed in succeeding years. This in itself tends to give dignity and permanence to the profession.

As a means of increasing or maintaining the efficiency of a teacher, the normal and university extension classes have been most effective, and as an official recognition of ability in teachers and therefore an incentive to them the promotional examination system at present in use in the Chicago public schools is worthy of high praise. According to this plan, the teachers in the elementary schools are in two groups. The salaries of those in the lower group reach a maximum point, fixed by length of service. After outside study and special preparation a teacher classed in this group can take an examination to be promoted to the higher group, where the salaries are larger and increase yearly until a maximum is reached. When a teacher reaches the maximum salary of this second group, three questions are asked: Is she a good teacher? Has she kept up her study of educational processes and methods? Has she kept up her interest in some branch of study outside the limits of her regular professional duties? If she meets the test in these three points she is promoted to the highest group; if not, her salary remains the same—the maximum of the second group. The first of these three points is determined by the judgment of the principal and the district superintendent; the second and third are determined by a written examination. There are special rules governing the appointment of special teachers, high school teachers and principals.

To supply the places of teachers temporarily absent, a list of eligible applicants for substitute work is kept, and from this list teachers are assigned in the order of their standings to fill vacancies which may occur. During the days they conduct class work they are paid at the rate of a fixed salary per month, and when not teaching they are paid at another fixed rate.

To assist in the general oversight of the schools of Chicago there have for many years been district superintendents, the number increasing as the schools grew until at one time there were fourteen. In a time of financial strain this number was cut down to six, and now there are ten holding the position of district superintendent. Without making the district assigned to any certain district superintendent a unit of division, still the superintendent of schools divides the city into temporary districts for convenience of administration. Each district superintendent, while he gives much personal attention to particular districts, is sent freely to all portions of the city to invest special questions—questions which, it is believed, he has a special fitness to pass upon. The main work of school administration is done by this body of superintendents organized into a board of district superintendents, which meets regularly to discuss the school situation with the superintendent of schools. Acting as a board they have taken charge of a large number of matters that were formerly looked after by individual district superintendents. In all matters where uniformity and co-operation seem to be specially desirable the superintendents act as a body. To this board have been referred questions of changes of boundaries of school districts, re-distribution of kindergartens, manual training centers, the semi-annual review of the records of elementary teachers substitutes, and cadets, the assignment and transfer of teachers and many

questions of a similar character. In questions involving the dismissal of teachers for incompetency, several, and sometimes all, of these superintendents, are asked to investigate, discuss, and report on each case. This body has been very fittingly called the inner, or the real, board of education, in distinction to the official board of education, whose members, being engaged in other pursuits, can scarcely find time to investigate personally the innumerable questions arising in the administration of so great a system as that of our public schools.

Associated with the superintendent of schools are three assistant superintendents, one of whom is the first assistant superintendent, who acts in the absence or disability of the superintendent.

Among the organizations which exist among the teachers of the public schools for mutual benefit and improvement is one which is called the Council System, organized in 1898. This system is composed of a school council, the principal and teachers of each school; a district council, the superintendent of the district, the principal and one teacher from each school; a high school council of the same character as the district council; and a central council, composed of all the superintendents, supervisors and delegates from the high and district councils. The possibilities of this organization for favorably influencing school work are great. Acceptance of any decision, judgment or advice emanating from the organization is purely voluntary. The influence of any action by any of the councils depends on the degree on which, by its intrinsic and obvious value, it commends itself to the judgment of those concerned. The organization makes practicable and easy the consideration and discussion of important questions on the theory and practice of teaching, and on other matters in which teachers are interested. Every teacher is thus made a student of these problems.

The Public School Teachers' and Public School Employes' Pension and Retirement Fund was created by a law passed and enforced in 1895. Its affairs are administered by a board of trustees consisting of the members of the board, the superintendent of schools, and two representatives of the teachers and employes of the board of education; unless such teacher or employe files with the secretary an official form of withdrawal from the Pension fund. The board of education has the power to retire teachers and other school employes from the service after twenty years' service by women, or twenty-five years' service by men; and such teachers and employes have the right after their term of service to retire and become beneficiaries, provided that three-fifths of that service shall have been rendered within the jurisdiction of the board. The annuities are paid in ten monthly installments by the city treasurer, who is the custodian of the money belonging to the pension fund.

The total number of teachers employed in the Chicago public schools as found on the books in June, 1910, was 6,383.

SCHOOL BUILDINGS

To keep up with the growing population of Chicago in supplying sufficient accommodation for the school children has been the great difficulty of the board of education, which at times was an insurmountable one. By building as many as twenty school buildings and additions in certain years, and adding steadily to the

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STEPHEN K. HAYT ELEMENTARY SCHOOL
Perry and Granville Avenues
Similar to this building are the Ole A. Thorpe, Lloyd, Warren, Key and Oglesby Schools

number, attempts have been made to furnish, as nearly as possible, school privileges to every child of school age in the city. This end has been gained not only by erecting new school buildings, but by building additions to old school houses, by renting rooms, and by placing portable school houses in order to relieve a temporarily congested district or to supply the need until a new building might be constructed. Still another way of making room for more pupils was the adoption of the half session plan, by which it was arranged that pupils of some of the first grade rooms should attend school in the mornings only, and others in the afternoons only, so that the same rooms could be used for two sets of children. It was one of the notable achievements of the present superintendent of schools that in her first year of holding this office she so changed the district boundaries of many schools and created new districts that, with the help of new school rooms built, the number of pupils in one-half day sessions was reduced from 9,703, so assigned in November, 1909, to 3,206, in June, 1910.

In a city whose population grows so rapidly as does that of Chicago, and where districts of the city become built up so suddenly, the problem of school accommodations for the children recurs constantly, and in varying aspects. A school building, situated in a once populated district may become suddenly wholly unnecessary when the district is built up with great industrial establishments. On the other hand, the extension of an electric car line for a mile or two, or the improvement in the suburban service of a steam railroad may build up a district in a few months. To provide for these rapid and uncertain changes in population takes no little time; rooms must be temporarily rented to admit the children of the new district. There is necessary besides a large amount of intelligent guesswork, in allowing for the changes that may occur within a few years. To give temporary seating room to the pupils of districts where there is no certainty of a permanent need for schools, the plan has been adopted of setting up portable school buildings which can be moved away when no longer necessary, or replaced by permanent buildings if the need is developed. These portable buildings are also placed in the grounds of schools which have become crowded, pending the construction of additions. Recently the board of education has each year adopted standard plans, according to which the school buildings are to be erected during that year. These types of school buildings are entirely fireproof throughout, with manual training room, household arts room, and a ground floor assembly hall and gymnasium. In the new plan the height of buildings is limited to three stories, the stairways and exits are wide and ample, and the boiler and coal rooms are located outside of the main walls of the building to reduce the dangers from fire and panic to the minimum. By adopting plans for uniform buildings there was a saving to the board of education of the cost of making new plans as well as a saving in the cost of construction of the building itself. Provision is made for plenty of light in the rooms, and for the most modern heating and ventilating apparatus that can be procured.

Many who are interested in the subject realize that the most elaborately planned system of ventilation is not adequate to keep the air in school rooms from being stale and laden with impurities and often with the most dangerous disease germs. In recognition of this, a plan has been adopted by the chief engineer of the board of education by which all school rooms are to be thoroughly aired three times a

day by opening the windows and doors throughout the buildings at practically the same moment, this to be done regardless of the ventilating system of the buildings.

As a result of the fresh air crusade which has been undertaken by many of those interested in improving ventilation in the schools, an open air school was started as an experiment in the summer of 1909 and conducted by Mr. W. E. Watt as principal. The work was so successful that it was continued and enlarged, as has already been told in this chapter.

An important step was taken in the educational policy of the board of education when they decided to increase the size of the building sites so as to make suitable provision for playgrounds; hereafter in providing for a new building enough land will be secured to include a playground.

In the auditor's report to the board of education it is found that the cost of locations and of sites, new buildings, additions, improvements and equipments shows a total investment on the part of the taxpayers of Chicago of $43,159,405. The cost per pupil for the year 1909-1910 was $36.20, and the total expenditure by the schools in that year was $9,180,181.37, according to the school report for 1909-10. There are 268 school buildings in the Chicago public system, including the Teachers College, Parental school and the high schools, with a total average daily membership of 248,501.

BUSINESS MANAGEMENT OF THE SCHOOLS

Beside the income from municipal taxes and from county and state school taxes, the funds used for maintaining the schools are derived from the school fund property. This property consists of those parts of Section sixteen which were not sold by the school board at an early period of Chicago's history for an insignificant price; of sundry tracts of land in different parts of the city, the title to which has been acquired by the foreclosure of mortgages, given to secure loans of money belonging to the school fund, and by the annexation of other municipalities to the city of Chicago. The school fund property is in charge of the school agent. The provision made for revaluation of this property every ten years for the purpose of establishing a correct rental basis has caused much discontent and litigation among the lessees. Some of these (principally the ones who have improved the property by putting up large buildings) have agreed to a modification of the conditions of the lease whereby they are to pay certain fixed rentals yearly until the expirations of their leases; with other lessees the periodical revaluation and increased rentals cause fresh objection and litigation, each time the revaluation is made. The conditions on which some of the lessees have made with the school board the agreements referred to have aroused much public suspicion and protest from time to time; the feeling of the committee in charge, made up of a few members of the board who have given much attention to the question, seems to be one of satisfaction with the arrangements made.

In order to secure for the management of the large sums of money at the disposal of the board of education a recognized, individual responsibility the secretary of the board has been made the business manager and is held accountable for the receipt and disposition of the funds belonging to the public schools. Important among the duties of the business manager are the examination, selection and recom-

By courtesy of the Board of Education

PARENTAL SCHOOL GYMNASIUM

mendation of school sites in connection with the erection of new school buildings, additions to old buildings, and for playground purposes; the purchase and distribution of school supplies of every description; the care and cleanliness of the school buildings and grounds; the care of the supply department, stables and warehouses connected therewith; the receipt, care and custody of all proposals and deposits accompanying these, as well as the contracts and bonds for all labor and material furnished, and the preparation of pay rolls for office and business employes, engineers and janitors, and the rental roll.

Effort is being made toward still further progress in business management in order to secure the most efficient service on the most economical basis possible and to introduce and carry out in the various business departments of the board progressive business methods which will bring about an administration equal to that of any successful banking or manufacturing organization in Chicago.

SCHOOL HOUSE FOR THE PEOPLE

Reverend William H. Ryder, who for many years was the pastor of the First Universalist church, and once a member of the school board, left in his will a provision that $10,000 be placed in the hands of trustees to be invested, and that the annual income be used in "procuring and causing to be delivered in the city of Chicago, annually, free lectures in aid of the moral and social welfare of the citizens of Chicago." It was suggested by the superintendent of schools, who was one of the trustees ex officio, for carrying out the provisions of the will, that courses of lectures given in the assembly halls of the school buildings in different parts of Chicago would reach the largest number of people; would be given to a class of people who would appreciate them and who would be greatly benefitted thereby. Since 1896 these lectures have been given in different school houses and have been well attended. The school house being used for a purpose like this, becomes more nearly what it should be—a school and meeting place for the people. Considererable latitude has been given to outside organizations in the use of school buildings for educational purposes, for it is desirable to utilize every bit of educational interest in the community, and the school authorities favor every movement that will bring the parents of the child in closer relation with the schools.

THE SCHOOLS AT PRESENT

The tendency of modern education, making in the direction of wider and freer development of the individual through greater opportunities offered, has been exemplified in the Chicago public schools, which in some respects are more progressive than any others in the country. Superintendent Young, in her report for 1910, indicates the present ideal in public education:—"In this country and in Europe there is a general protest against the demands of the elementary school upon growing children. With the increase of things to be learned that have been developed through the activities of modern life, our conservatism often makes it a difficult problem to decide what in knowledge acquired by the race in ancient and mediæval times, could be eliminated to the advantage of the learner. Industrial education, while seemingly an added element in the work of the schools, is really helping clarify the vision of educational people as regards both the necessary elim-

ination of what is abstract to inexperienced minds, and the substitution of experi-
and a better balanced distribution of the emphasis on different subjects has been
ence for the generalized statement. A revision of the course of study aiming at
the elimination of the unimportant, the recognition of the training of the hand,
made by the education department."

CHAPTER LVI

THE CHICAGO PUBLIC LIBRARY—THE PUBLIC SQUARE, ETC.

THE CHICAGO PUBLIC LIBRARY—ITS BEGINNINGS AFTER THE GREAT FIRE—FIRST SUGGESTIONS MADE BY ENGLISH FRIENDS—GIFTS BY EMINENT ENGLISH PEOPLE—RUINS OF OLD RESERVOIR USED AS LIBRARY—FORMAL OPENING—WILLIAM F. POOLE BECOMES LIBRARIAN—RAPID GROWTH OF THE COLLECTION—VARIOUS CHANGES OF LOCATION—NEW BUILDING IN DEARBORN PARK—ARCHITECTURAL DETAILS OF BUILDING—DECORATIONS OF INTERIOR—BOOK STACKS AND READING ROOMS—GRAND ARMY HALL—TREASURES OF THE PUBLIC LIBRARY—BRANCH LIBRARIES—NEW DESIGNATIONS AND NUMBERING OF STREETS—NEW SYSTEM DESCRIBED—A VISIT TO THE HOME OF JULES G. LUMBARD—THE VETERAN SINGER IN HIS OLD AGE—ORIGIN OF THE PUBLIC SQUARE—EARLY COURTHOUSES—EFFECTS OF THE GREAT FIRE—THE NEW COURTHOUSE AND CITY HALL—A MONUMENTAL BUILDING—LITERARY NEWSPAPERS.

THE CHICAGO PUBLIC LIBRARY

THE present splendid building of the Chicago Public Library occupies a site formerly known as Dearborn Park. In 1839, when the plat of the Fort Dearborn addition to Chicago was prepared this half-block of land was set apart for a park. It was for years the fashionable part of the young city, and near it were the residences of many of the prominent citizens of the time. It was surrounded by a fence and within the enclosure trees were planted, so that in a few years it became a most attractive spot. In 1865, the great building of the Northwestern Sanitary Fair was constructed on this half-block of land, but after its removal the park had lost much of its attractiveness owing to the destruction of the trees. It was from this spot that the tragic balloon ascension of Donaldson and Grimwood was made in July, 1875, both of whom were drowned in the lake, as related elsewhere in this work.

It is an interesting fact that the first steps in the formation of the Chicago Public Library were taken in England. When the news of the Chicago fire of 1871 reached England there was a tremendous outpouring of sympathy among the people of the mother country. After the first generous gifts for the relief of the sufferers by that terrible calamity had been made there sprang up a desire among our English cousins to do more than merely alleviate the physical misery of the unfortunate people of Chicago, and a mass meeting was called on November 12th, 1871, in London, at the instance of Thomas Hughes, well known as the author of "Tom Brown at Rugby," and "Tom Brown at Oxford," the purpose of which was to interest the English public in making donations of books to form a library for the people of Chicago. Many eminent Englishmen, among them the Duke of Argyll, Benjamin Disraeli, Justin McCarthy, W. E. Forster, Thomas Carlyle, and other

political and literary leaders, gave assurances of their warm interest in the movement.

It was realized that Chicago had suffered the loss of all its libraries as well as its scientific collections. At this meeting a subscription was started for the purchase of books, and an appeal was also made for the gifts of volumes to be sent to supply the loss. This appeal was responded to in the most generous manner; authors, societies, publishers and individuals contributing a total of some seven thousand volumes. The British Museum sent a full set of its publications; the Master of the Rolls sent the Chronicles and Memorials of Great Britain; and Oxford University sent the publications of the University Press, consisting of two hundred and fifty finely bound volumes. The Queen contributed a copy of "The Early Years of the Prince Consort" with her autograph, and many living authors sent copies of their own works. Many publishers added largely to these gifts.

As there was no place in which the books could be accommodated after their arrival they were not sent until the following summer. Meantime the citizens of Chicago, when they learned of this magnificent gift, took steps toward the organization of a free public library, and a law was passed by the state legislature authorizing cities to levy a tax for such a purpose. The offices of the city authorities having been installed in a temporary building erected on the old reservoir lot on the southeast corner of Adams and La Salle streets, a space for the necessary book shelving was found within the great iron cylinder of the reservoir now no longer in use, which was provided with a roof and the interior lighted by skylights. This was the first home of the Chicago Public Library and it occupied these quarters until early in 1874, when it was removed to the second floor of a business block on the southeast corner of Wabash avenue and Madison street. The temporary structure occupied by the city authorities, referred to above, together with the shell of the reservoir utilized for the library, came to be known as "the Rookery," a term used derisively, but which has since been retained as the name of the splendid office building which eventually took the place of the hastily erected shelter.

The books sent by the English donors arrived at Chicago in August, 1872, and were at once taken to the "old tank" and placed in order on the shelves prepared for them. The first board of directors was composed of Hon. Thomas Hoyne (who was elected president of the board), S. S. Hayes, R. F. Queal, J. W. Sheahan, D. L. Shorey, Herman Raster, Willard Woodard, Elliot Anthony, and Julius Rosenthal. The reading room in the tank was formally opened on January 1st, 1873, with addresses by Mayor Joseph Medill, President Hoyne and others. The library was placed in charge of W. B. Wickersham. In the following October, William F. Poole, formerly librarian of the Boston Athenaeum, and then in charge of the Cincinnati Public Library, was appointed librarian, and entered upon his duties on January 1st, 1874.

LOCATIONS AND LIBRARIANS

When the library was opened to the public in March, 1874, at its Wabash avenue location, the number of volumes it then contained was 17,355. It did not remain in these quarters very long, however, as in May, 1875, it was removed to the third and fourth floors of the Dickey building at the southwest corner of Lake and Dearborn streets. Here it remained eleven years when on the completion of the new City

Hall it found new quarters in the fourth story of that building, (in May, 1886); having now grown to a total of 120,000 volumes. The library occupied these premises for another period of eleven years, when in September, 1897, it was finally removed to its permanent home in the new building. The formal opening at its new and magnificent home took place on the 9th of October, the twenty-sixth anniversary of the great fire.

As mentioned above Dr. William F. Poole was appointed librarian on October 25th, 1873, a position which he held until August 1st, 1887, when he resigned to take charge of the Newberry Library. Mr. Frederick H. Hild was appointed to succeed him on October 15th, of the same year. Mr. Hild continued in charge for twenty-two years, when he was succeeded, on October 11th, 1909, by Mr. Henry E. Legler, the present librarian.

On January 1st, 1911, the library contained 410,000 volumes, and about 75,000 unbound pamphlets. The annual expenditure for the maintenance and operation of the library is about $350,000. The number of employes in all the departments is two hundred and sixty.

The entire cost of the building was about two millions of dollars, which includes the furniture, book-stacks and machinery. To Mr. Charles A. Coolidge, then resident member of the firm of Shepley, Rutan & Coolidge, architects, of Boston, Massachusetts, is chiefly due the credit for the design and construction of the building, and for its decorations.

PRESENT LOCATION OF THE LIBRARY

The site chosen for the location of the Chicago Public Library is an ideal one for an institution of the kind. Its great windows have an outlook upon Grant Park, beyond which is visible the blue expanse of Lake Michigan stretching away to the horizon line. The main entrance of the building is on Washington street, its eastern side extending in an unbroken facade along Michigan Boulevard to Randolph street, and completely covering the space to the alley lying between Michigan Boulevard and Wabash avenue, known as Garland court.

That Dearborn Park should have been sacrificed, even for such a worthy purpose as the location of a great library, was no doubt a mistake on the part of the authorities. If such a proposal were made at the present time it is not likely that it would be permitted, in view of the state of public sentiment now prevalent in such matters. The fact that the great Field Museum and the Crerar Library, seeking locations in Grant Park, have utterly failed to secure the necessary authority to construct buildings there shows the changed conditions; and though the opposition was for a long time almost wholly centered in one individual, Mr. Montgomery Ward, the exclusion of these institutions from down town park spaces has been approved by the people of the present day. It needs but a slight exercise of the imagination to realize what a beautiful appearance Dearborn Park would have presented had it been kept free from structures of any kind, other than a monumental fountain surrounded by foliage, a cool and inviting spot within the line of great business buildings. The library would have found a suitable site even if this location had been denied to it.

DESCRIPTION OF THE BUILDING

The building of the Chicago Public Library is 352½ feet long, 146¼ feet wide, and ninety feet in height. It contains three principal stories, with two intermediate floors and a basement. The exterior is of Bedford stone with a granite base. The foundations of the walls and piers are laid on piles driven to a great depth, the lower courses of the walls and piers beginning at a depth of about seventy-four feet below the sidewalk. The walls are of solid masonry construction, and the floors and piers of steel with hollow tile arches and partitions. The building is practically incombustible.

The architectural features of the building are thus described in the handbook issued by the institution: "The general treatment of the exterior of the building is a harmonious combination of various styles of architecture, the lower part being in the neo-Greek style with wide arched windows, and the upper part in Grecian style with pillars and columns separated by windows. The entablature is of pronounced Roman character, with heavy projecting garlands and lions' heads sculptured on the frieze. The two entrances to the building vary greatly in style, the Washington street entrance being a wide arched portal leading directly to the grand staircase hall; while the Randolph street entrance is a portico with massive Greek columns before the three doorways opening into a spacious corridor, with the north staircase and elevators leading to the Grand Army Memorial Hall and the reading rooms above.

"Entering the building from Washington street, the visitor finds himself at once under the massive elliptical arch of the main staircase, at the foot of which, embedded in the green and white mosaic floor, is a large bronze replica of the corporate seal of Chicago. The ascent is by means of wide marble steps, with balconies at easy distances, and ends in the Delivery Room, which is entered by three open archways at the top landing. Italian statuary marble from the famous quarries of Carrara is used in this portion of the building, richly inlaid with mosaics of glass, mother-of-pearl, and semi-precious stones, and in the balustrades on the staircase, with small centerpieces of the rare and beautiful Connemara marble. On the third-floor landing panels of mosaic design, with suitable inscriptions and the names of great writers, are set in the walls.

"The Delivery Room proper, which extends across the entire width of the building, with a length of one hundred and thirty-four feet, and a depth of forty-eight feet, is divided into three parts by a rotunda in the center, surmounted by a beautiful stained-glass dome. Elliptical arches rise from the marble piers at the four corners, and the walls above are elaborately covered with mosaics, into which are worked the devices of the early printers and other appropriate designs. The wings of the Delivery Room are wainscoted in Carrara marble, above which extends a frieze of glass mosaic, containing large panels of green serpentine marble inlaid with white inscriptions in ten different languages, and also in various characters, from Egyptian hieroglyphics to modern Roman.

"Four large book rooms, equipped with three-deck steel stacks with glass floors, and having a capacity of 350,000 volumes, open directly into the Delivery Room. The west end of the room comprises the Open Shelf Department, and the corresponding east end is occupied by the Registry Department. The Information Desk and

CHICAGO PUBLIC LIBRARY

CHICAGO HISTORICAL SOCIETY BUILDING

tables for the users of finding lists are also located here. On this floor, also, are the administrative rooms of the Library.

REFERENCE AND READING ROOMS

"The floor above is occupied by the Reference and Reading Rooms. The former room, one hundred and thirty-eight feet long, thirty-eight feet wide, and thirty feet high, with accommodations for two hundred and twenty-five readers, is situated on the east front of the building, and is directly over the book rooms, with which it is connected by means of automatic electric lifts, thus insuring rapid service. It is reached from the south staircase by a long corridor, and adjoining it on the south are the public card catalogue room, the room for special students, and a three-story stack room for bound periodicals. Here the scheme of decoration is much less elaborate than on the floor below, the only noticeable coloring being in the low wainscoting and baseboards of beautifully mottled Siena marble. On the top floor, at the south end, are the exhibit rooms and the rooms for art books.

"The great Reading Room for periodicals and newspapers, one hundred and forty-two feet long and fifty-five feet wide, seating four hundred and fifty readers, occupies the entire north front of the building on the fourth floor, adjoining the Reference Room. Richly decorated in warm browns and greens, with verde-antique marble pilasters and wainscoting, this is one of the most imposing rooms of the building."

THE GRAND ARMY HALL

"Directly under the Reading Room, and of nearly the same dimensions, is the Grand Army Memorial Hall, a splendid and dignified apartment, in which again the deep green of the verde-antique marble, combined with the general color scheme of red and brown, produces an effect of great beauty. Plaster reliefs of ancient accoutrements of war are introduced in the frieze, flag-cases of bronze are placed at intervals around the room, and cases for relics occupy the center of the hall. The handsome lobby leading into the hall is lighted by a dome similar to that at the south end of the building. Council rooms and ante-chambers, all luxuriously furnished, complete the suite occupied by the local posts of the Grand Army of the Republic."

The lease of the premises occupied by the Grand Army posts is for a term of fifty years, dating from January 1st, 1898. While a nominal rental is required, the main purpose is to provide the veterans of the Civil War with a high class and comfortable place of resort, a spacious and convenient assembly room, and a home for the extensive collection of objects and relics relating to the war, all practically without cost to them. The lease is for a period long enough to answer the purposes of surviving veterans, and at the end of its term the premises will revert to the Chicago Public Library.

TREASURES OF THE LIBRARY

Like all great libraries the Chicago Public Library is in possession of a number of especially valuable books, among which may be mentioned many of those which were received from England at the time of the formation of the library. Many of them bear inscriptions of their authors and of eminent men, and also in some cases they are valued for their rich bindings or superior typography.

A remarkable work is the catalogue of the Heber Bishop collection of Oriental jade ornaments and objects, now in the Metropolitan Museum, New York. This catalogue is in two heavy folio volumes, sumptuously printed and illustrated. One hundred copies only of this great work were printed, the cost of publication amounting to one hundred thousand dollars; thus each set of two volumes represents a value of one thousand dollars. The one hundred copies were distributed as gifts to leading museums and libraries. Chicago was fortunate in receiving four copies of this work, each of the following institutions receiving one;—the Art Institute, the Newberry Library, the John Crerar Library, and the Chicago Public Library.

BRANCH LIBRARIES

"The wide distribution of Chicago's population," says the handbook, "has made it necessary to provide small branch or deposit libraries in the residence districts, thus, in a measure, carrying the benefits of the library to those who cannot conveniently come to it. These are established at convenient points throughout the city and were formerly housed in rented quarters." Arrangements were made, however, with the various Park Boards by which the library has been enabled to install attractive little reading rooms and book collections in the field houses of many of the parks. These small segments of the Public Library, each containing from one to three thousand volumes, a goodly portion of which are juvenile books, attract the people of the neighborhood and are a boon to the children.

There are two among the branch libraries, however, which are on a much larger scale than those mentioned above, and really approach the dimensions of independent libraries, both in respect to the buildings they occupy and the books they contain. These two require some special reference and description.

The Blackstone Library is a branch of the Chicago Public Library. "This beautiful structure," says the handbook already quoted from, "is worthy of particular mention, not only because it is one of the finest and costliest library buildings of its size in the world, but also because it marks the beginning of the branch library system in Chicago. The location is a triangular lot at the intersection of Lake and Washington Avenues and Forty-Ninth street. The building covers a rectangular space of one hundred by forty-five feet, with entrance on Lake Avenue. It is constructed of white granite in the pure Ionic-Grecian style, modeled after the famous Erechtheum at Athens." This structure, together with the ground upon which it stands, was the gift of Mrs. Blackstone in memory of her husband the late Timothy B. Blackstone, a well known citizen of Chicago. Mrs. Blackstone herself directed the construction of this splendid building, and upon its completion made a formal transfer of it to the Library Board.

The Hiram Kelly branch of the Chicago Public Library is located at the northeast corner of Normal Boulevard and Sixty-Second street. The building covers an area of ninety-two by fifty-four feet, is constructed of brick and stone, has a capacity of about twenty thousand volumes, and is appropriately fitted up for library purposes. This building was erected at a cost of about $73,000, from the accumulated income of a bequest made by the late Hiram Kelly, one of Chicago's leading merchants who died in 1904, and who designated the Chicago Public Library as his residuary legatee. In the final settlement the library received the sum of $200,000 from the trustees of the Kelly estate. The income "enabled the Board of Directors

to undertake the establishment of this branch, and to plan for its equipment and maintenance without one cent of expense to the taxpayers of the city, either for books or the salaries of the staff."

There are in all seventeen circulating branch libraries embraced in the system of the Chicago Public Library, two of them as above described having buildings especially erected for the purpose.

NEW DESIGNATIONS AND NUMBERING OF STREETS

In 1911, the designations of many streets in Chicago were partially changed to conform to a new system of numbering provided by an ordinance of the Common Council. In the new system adopted which became effective on the first of April, 1911, Madison Street, from Lake Michigan to the western city limits, was made the base line for numbering all north and south streets, as well as streets running in a northerly or southerly direction. For east and west streets, and streets running generally in an east and west direction, the base line was State Street which extends from the southern city boundary line to North Avenue (where State Street ends), thence extended by an imaginary line through Lincoln Park to Lake Michigan.

The plan of numbering on streets of the south side, south of Twelfth Street, which commenced with an even number of hundreds at each numbered street, had already been in operation for many years; so that, for example, the first number on State Street south of Twenty-Second Street would commence with number 2200, continuing in consecutive numbers until Twenty-Third Street was crossed, when the numbers would commence with number 2300, and so on. This system, however, did not obtain on streets north of Twelfth Street until the change made on April 1st, 1911, above referred to. After this date the numbering was required to conform to the general plan previously in operation on the South Side south of Twelfth Street, thus superseding the original system in use from the beginning.

By the new system eight hundred numbers were assigned to each mile, or one hundred numbers to each one-eighth of a mile. Commencing at number one at the north line of Madison Street the numbers on north and south streets were required to be used according to this plan, until the streets reached the city limits or arrived at their terminations. Similarly, the streets running south from Madison Street were required to use numbers on the same plan until the streets joined those already using this system on the South Side, beyond which the numbering exactly coincided on the further course of these streets to the southern city limits. In like manner numbers on east and west streets, were required to commence with number one at State Street and continue throughout.

The prefixes North, South, East and West, were required to be used on all streets according to the general direction except such as are open only on one side or the other of the base lines, namely, Madison and State Streets. It thus resulted that Monroe Street, for example, was thenceforth known as West Monroe Street from its intersection with State Street running towards the west, and East Monroe Street towards the east. Also all north and south streets thenceforth bore the prefixes "North" and "South" (Madison Street being the base line), and also all numbered streets and numbered avenues whether open on each side of the base line or not. The prefixes to all the streets in the district affected by the new plan of

numbering were thus changed to conform to the system, and the new designations became a fixed feature in the nomenclature of the city.

The exceptions in the prefixes as noted above were made on all named streets which were open only on one side of either of the base lines, such as Ann Street on the West Side (open only north of Madison Street), and Bowen Avenue on the South Side (open only east of State Street).

As may well be imagined the new designations of streets and the new system of numbering caused endless confusion to the public for a time, but as the great improvement and convenience resulting from the new order of things was realized, the changes eventually received the hearty commendation and approval of the people. It may be remarked that the streets mentioned in the various parts of this history are designated by the names by which they were known before these changes had taken place, owing to the fact that the manuscript was prepared in great part previously to the time the changes went into effect.

A VISIT TO THE LUMBARD HOME

An account of the experiences of the Lumbard brothers upon their trip to Vicksburg, which may differ in some of its details from that given in a previous chapter is related here. This account was written at a later date than the other, and, as it is derived from a direct interview, it is more likely to be accurate. It may be mentioned that in the previous account it was said that General Grant had sent for the Lumbard brothers to come to the army before Vicksburg and sing for the soldiers in camp. According to the later account they were engaged to go south by persons representing the Sanitary Commission. As it might easily have happened that General Grant had expressed a wish for their presence which the Sanitary Commission were complying with, the former statement is allowed to stand, as in this view it is not necessarily in conflict with the later one.

The writer, taking a hint from the historian Lossing's methods, called on Mr. Jules G. Lumbard on the afternoon of July 31st, 1911, at his home in Englewood. He found him sitting quietly at a table entertaining himself with a game of solitaire, but, like those veterans possessed of a store of interesting memories which they are willing to share with the seeker for information, he entered at once into the subjects touched upon. The writer had spent many hours with him on two previous occasions, when he had sung war songs before assemblages, once at a regimental reunion, and again at Memorial Day school exercises. Mr. Lumbard is in the eightieth year of his age, a man of large frame but quite infirm, having suffered from a stroke of paralysis some years ago which, however, has not dimmed his faculties in the slightest degree. He has been a widower for many years, but he is cared for in the most devoted manner by his sister-in-law, his brother Frank's widow, who is but a few months younger than himself.

The conversation led to his experiences in the Vicksburg campaign. The events were related jointly by Mr. Lumbard and by Mrs. Frank Lumbard (who was present at the interview), for though she did not accompany her husband on that occasion she had heard him speak of his journey so often that she had become thoroughly familiar with its details.

The Sanitary Commission, it was related, in carrying out its purpose of furnishing supplies and "good cheer" to the men at the front, had engaged the Lum-

Photograph by A. W. Watriss

JULES G. LUMBARD AT THE PRESENT TIME

One of the famous Lumbard brothers, Jules and Frank, who were singers of war songs during the Civil war.

bard brothers, Jules and Frank, to accompany one or more of its representatives to the army besieging Vicksburg. On the way the party stopped for a short time at Memphis where Frank was asked to sing at the theatre, a request with which he readily complied, and among other pieces he sang the "Star Spangled Banner." During the singing of the latter a number of ladies having secession sympathies started to leave the theatre in high dudgeon, but found the doors locked when they attempted to do so. The locking of the doors was done by Edward Jessel, a well known Chicago auctioneer of that time, who was accompanying the Sanitary Commission party on its southern journey.

Arrived at their destination, the Lumbard brothers performed a valuable service in furnishing "good cheer" which was part of the programme of the Commission's work. As already stated the lines of the opposing armies lay so near each other that the strong and melodious voices of the singers, while rendering the stirring songs of their famous repertory, were heard in the Confederate camp, and a voice called out, "We know who's singing, its the Lumbard boys of Chicago;" to which was added the request, "Come over here and sing for us, we'll treat you like gentlemen and give you a safe conduct to return."

Frank Lumbard went to General Grant and asked him if it would be proper to comply with the request. "Better not go," said the General, "perhaps they would let you come back and perhaps not; and if they did not I should feel obliged to go over after you." Frank considered this remark equivalent to a refusal and no more was said about it. The visit of the brothers continued for a week or ten days.

The interview from which the above details were gathered forms one of the many bright spots in the experience of the writer of this history. Others have had similar ones especially if the fields of their investigations have lain within the recollections of living men. Consider for a moment the intense interest with which Thucydides was inspired while writing his graphic history of the Punic wars,—survivors all about him everywhere and he himself one of the participants. The writer cannot leave this subject without remarking that this man, and his brother long since passed away, have never received any official recognition from the government for which they performed such distinguished and valuable services. One of the reasons frequently given why enlistments during the Civil War were in sufficient numbers at Chicago so that the necessity for a draft was avoided (which at one time was seriously threatened), was owing to the enthusiasm everywhere created by their patriotic songs at war meetings so frequently held in those years.

Both Jules and Frank, it is said, had opportunities to enter the military service as commissioned officers, but they were advised by patriotic citizens who perceived the value of their services not to do so, as they were serving their country in a much more useful capacity in the work they were doing; and they remained in civil life. It did not occur to the Lumbard brothers seemingly that in the subsequent distributions of honors and benefits the absence of their names from the army register prevented them from having any part or lot with the veterans of the army.

There is a vital lack, however, in the lives of these two estimable people, survivors of that far away time of stress and public anxiety, who now in the evening of their days maintain a precarious hold upon their domicile and with uncertain means of support, now remain forgotten and almost unknown, while living among people who would gladly put forth effectual efforts in their behalf, if they were but aware of the real state of affairs.

THE PUBLIC SQUARE

The origin of the title to the block of ground known as the Public Square, on which stands the County Building and City Hall both included in a single structure, dates back to the grant made by Congress in 1827 to the State of Illinois, of "land equal to one-half of five sections in width on each side" of the proposed Illinois and Michigan Canal. A portion of section nine comprised in this grant, lying within the present area of the City of Chicago, was subdivided by the Canal Commissioners in 1830, and a sale of lots took place in September of that year as described in an earlier portion of this work.

Twenty-four of the lots were deeded to the County of Cook on June 16th, 1831, about five months after the county had been organized, "to aid said county in the erection of public buildings." Of the twenty-four lots thus given to the county sixteen were afterwards sold, "not for the purpose of erecting public buildings," said Judge Henry Brown reproachfully, in an address made some years later, "but to pay current expenses." The remaining eight lots, comprising the entire block bounded by Randolph, Clark, Washington and La Salle streets, were thus a gift to the new county by the State of Illinois.

Judge Henry Brown in the address above referred to (made at the Chicago Lyceum in 1846), pleaded against any further sales of lots owned by the county. He said: "It has been proposed to sell the public square," and this proposal he proceeded to denounce as "an act of double treachery," that is, treachery against the state from which the gift of the lots had been received, and against posterity; for if it is "reserved for public use and embellished as it ought to be with trees and shrubbery, it will be an ornament to our city, and generations now unborn will yet arise and bless us for having spared it." Fortunately this sound advice was heeded and the county is still the owner of the "Public Square."

BUILDINGS ON THE PUBLIC SQUARE

A substantial brick courthouse and jail was erected in 1835. This structure was one story in height with a broad flight of steps at the top of which was a classic portico supported by columns. Thomas Hoyne, when he arrived here in 1837, beheld it with wonder and admiration, and compared it with the Parthenon at Athens, pictures of which he had doubtless seen in books. The building was near the northeast corner of the square, the front of the building facing on Clark street.

In 1851, the city authorities whose offices had been located in the "Saloon building" for a time and later in the Market building on State street, joined with the county authorities in planning a new structure to be occupied by both of these corporate bodies. Accordingly, on September 12th, 1851, the corner stone of a building to be erected at the center of the square was laid with appropriate ceremonies, and in 1853 it was ready for occupancy. John M. Van Osdel was the architect of this the second courthouse building. This building was soon found too small and another story was added to it, with a cupola and belfry. But this again soon became inadequate for the growing needs of the fast growing young "metropolis of the west," and, in 1870, it was extensively added to, this time with wings on the east and west projections, with domes surmounting the additions. It was then regarded

as "one of the handsomest buildings in the State." Soon after its completion, however, the great fire of 1871 almost completely destroyed it with its contents, leaving only some of the exterior walls standing upright, one of the most picturesque ruins remaining after that terrible calamity.

BUILDINGS SUBSEQUENT TO THE FIRE

After the fire the County and City authorities were obliged for a term of years to find quarters in a temporary building hastily erected for their purposes on the southeast corner of La Salle and Adams streets, which owing to the rough manner of its construction soon acquired a dilapidated appearance, and became known as the "Rookery." On this location in later years an office building was erected which was also called the Rookery, thus giving a fitting permanency to the name.

In 1877, the city and county entered into an agreement for the construction of a building for their joint use on the public square, the county to occupy the eastern part and the city the western part. It was also agreed between them that the exterior of the building should be of uniform architectural design, and Mr. James J. Egan, the architect for the county, furnished a design for the entire structure. Building operations were commenced but it was not until 1885 that the western portion of the building was ready for use by the city authorities, though the eastern portion was completed and occupied by the county some time before that date. It was intended that a great dome should surmount that portion of the structure connecting the two buildings, but for various reasons, mainly for lack of funds, this was never done. The design of this great building was much admired by residents and visitors, and it was keenly regretted by most people when in later years it was found necessary to raze it and replace it with a new structure. Unfortunately it was found after the building had been completed a few years that its foundations were not adequate for the support of a structure with such heavy walls, and after a succession of alarms from settling and cracking walls it was condemned and a new building provided for.

THE COURTHOUSE OF THE PRESENT DAY

The great building occupying the entire area of the Public Square, and known as the Courthouse and City Hall, was finally completed in the early months of 1911. The two parts of this immense building were constructed separately though forming one complete structure in its finished state. The portion of the building on the east half of the block is known as the County Building, and the portion on the west half as the City Hall.

The construction of the County Building was entered upon some two years before the Chicago city authorities made a definite move to replace the old city hall with a new one. The county authorities employed Messrs. Holabird & Roche, architects, to make the design and superintend the erection of the new county building. The design provided for a building on the east half of the Public Square only, as it was not known at that time whether or not the City would join with the county in the erection of one great structure. Accordingly the old county building was demolished and much of the stone which had been used in it was reduced by stone crushing machinery to a proper condition for making concrete to be used in the foundation work of the new. The building was completed and occupied in the fall of 1907.

The design of the architects was remarkable in many respects. "Its design was influenced very largely by the clamor of the business interests of Chicago for a business building designed according to the type of the modern fireproof office building," says a writer in the *Fireproof Magazine* for November, 1907. "The architects whose design was adopted desired to make this a monumental structure, and from the very first endeavored to reconcile the commercial idea with the architectural idea in its design. It was known that the building should have at least eleven stories with practical accommodations for all the varieties of official business to be conducted by the county, as well as for a large number of courts located in Cook County. In deciding to make the exterior a monumental one they determined to preserve the proportions of a grand order of architecture as well as they could with not more than two compositions forming the base of the order. It was necessary to bring eleven stories within these bounds, with varying heights according to the necessities of their use, and also to provide the proper exterior light for all the stories and to reconcile the largest width of openings for exterior windows with a design the main feature of which was to be a colonnade of colossal Corinthian columns."

DETAILS OF CONSTRUCTION

The wrecking of the old County Building began in October, 1905. Work on the foundations began in January, 1906, and in the following April the first steel work was set in place. In the following year and a half the entire structure was carried on to completion, a remarkable rate of speed for construction of this character. The size of the building is three hundred and seventy-four feet on the Clark Street front, and one hundred and fifty-seven feet on each of the Washington and Randolph Street fronts. The total height above the grade of the street to the top of the wall over the cornice is two hundred and eighteen feet.

The basis of the whole design is the colonnade of Corinthian columns to which everything else is subjected; and to preserve the scale throughout the order is Cyclopean. The columns are engaged with the walls of the building, only about three-fourths of the shafts standing separate from the body of the structure. The diameters of the shafts are nine feet and four inches, and their lengths are seventy-five feet. The cost of construction of the County Building was in round numbers five millions of dollars.

In the construction of the County Building there were pavilions placed at the west ends of the Washington and Randolph street fronts, which appropriately completed the design, as it was not then known that the city would erect a building as a part of the same exterior design. But about the time the County Building was completed the city authorities decided to employ the same architects who had designed and built the County Building, and continue the monumental row of Corinthian columns completely around the proposed new City Hall. This made it necessary to take down those portions of the wall occupied by the pavilions, work that had only been completed a few months; and along this space the great columns were substituted for the pavilions.

The dimensions of the City Hall are the same as those of the County Building, so that the entire area covered by the combined building is three hundred and seventy-four by three hundred and fourteen feet. While the exterior lines of the City Hall are the same as those of the County Building the interior is differently

THE COUNTY COURT-HOUSE AND CITY HALL, OCCUPYING THE BLOCK BOUNDED BY CLARK, WASHINGTON, LA SALLE AND RANDOLPH STREETS This building was completed in 1885.

By permission of Chicago Historical Society

SECOND COOK COUNTY COURT HOUSE

Erected in 1853; destroyed in the great fire of 1871. This picture shows the procession leaving the building at the time that Lincoln's remains were lying in state, May 1, 1865.

arranged except as to the grand corridors. "That this building is monumental," says the writer already quoted from, "cannot be denied. It is as high as any of the sixteen story office buildings in the city; but, on account of its proportions having been carefully preserved, it does not have the appearance of extraordinary height. It may be said that it dwarfs itself through the largeness of its details; but it is so large as to impress everyone with its size" and favorably compares with the other numerous skyscrapers of the city.

At the close of his administration in April, 1911, Mayor Fred A. Busse, in referring to the building of the new City Hall, said in his report, "In the public eye the new City Hall is perhaps the most prominent monument of this administration. It has been erected at a cost of approximately five millions of dollars, and is now practically completed. It contains more floor space than the County Building which latter structure has been considered a model of public edifices. Together they will form a splendid exhibition of the energy, enterprise and public spirit of the community."

LITERARY NEWSPAPERS OF THE FORTIES AND FIFTIES

"The first weekly of predominantly literary character," says Herbert E. Fleming, in his history of the literary periodicals of Chicago, "was named, in response to the stimulus of environment, the *Gem of the Prairie*. This paper retained its prairie name from the founding in 1844, until it became the Sunday edition of the *Chicago Daily Tribune* in 1852." The same writer in another portion of his history says that "in the supplements of the *Chicago Sunday Tribune* to-day, containing stories, comic pictures, *'Workers' Magazine'* features, and miscellaneous reading, one can see the outgrowth of the old *Gem of the Prairie*.

"The development of those pages in the *Chicago Sunday Tribune*, which broadly may be classed as literary in character, is typical of morning dailies in Chicago and elsewhere. This type of growth has reached its highest form of specialization * * * in the *'Sunday Magazine'* of the *Chicago Record-Herald* and newspapers of other cities associated in its publication. Incidentally, the points about the course of development in the *Gem of the Prairie* and the *Chicago Sunday Tribune* show, in outline, the history of the only periodical of a literary character established in prairie days which has continued in any form and retained such character to the present time."

At the time that the *Gem of the Prairie* lost its original name, the *Literary Budget* which became a journal of the same type, made its appearance. W. W. Danenhower, who had a bookstore on Lake street at that time, was editor and proprietor. The *Literary Budget*, at first a monthly and later a weekly, lasted from 1852 to 1855, in which latter year it was discontinued, and in its place Danenhower established the *Weekly Native Citizen*, which declared that "hereafter America shall and must be governed by Americans." The *Native Citizen* expired in the following year with the waning of the Know Nothing movement spoken of elsewhere in this work.

LITERARY NEWSPAPERS AFTER THE WAR

A number of other publications of a literary character began and ended during the years previous to the beginning of the Civil war. "The war put a temporary stop to the founding of literary periodicals," says Fleming. Soon after the close

of the war the *Western Monthly* was established "intended to be purely an institution of the West." Later in its career Francis F. Browne became the director of the *Western Monthly,* the name of which he changed to *Lakeside Monthly.* This publication "remains the one most distinctive in unalloyed literary appeal, the one most chaste and finished in form." It made no use of illustrations but its "typography became so nearly perfect that the *Inland Printer* has declared it to have been the best in any Chicago periodical excepting only that influential journal of literary criticism, the *Dial,* which Mr. Browne himself established later." The *Lakeside* suspended publication in 1874, owing to Mr. Browne's failure of health, "and thus was closed the career of an enterprise in periodical literature," says Fleming, "which, in many respects, was the most important in the history of the literary interests of Chicago."

Up to 1905 Mr. Fleming found, as the result of a search through the newspaper directories and among all the available files in the libraries as well as by means of private sources of information, that there had been three hundred and six literary publications attempted in Chicago, of which only thirty-six were in existence in the year mentioned. Of the latter, eleven were "mail-order" or "family-story" periodicals. The only high grade magazine which has had a long career and still survives is a journal of literary criticism, the *Dial,* established in 1880, and at the present time enjoying a satisfactory degree of prosperity and maintaining its high standard of excellence.

CHAPTER LVII

BENCH AND BAR

THE ORGANIZATION OF COOK COUNTY—FIRST CIRCUIT COURT—JUDGE CATON'S RECOLLECTIONS—EARLY COURT EXPERIENCES—CATON'S REVIEW OF THE HISTORY OF THE JUDICIARY—THOMAS HOYNE'S ARRIVAL IN CHICAGO—ADMITTED TO THE BAR IN CHICAGO—HOYNE'S ACCOUNT OF EARLY COURT PROCEEDINGS—CHARACTER OF HOYNE—MELVILLE W. FULLER IN CHICAGO—HIS EMINENCE IN THE PROFESSION—TRIBUTE TO FULLER—THE JUDICIAL SYSTEM OF THE STATE—THE CONSTITUTION OF 1848—COOK COUNTY COURTS—PRESENT STATUS OF LOCAL JUDICIARY—CIRCUIT COURT—APPELLATE COURTS—THE MUNICIPAL COURT—THE JUVENILE COURT—THE CHICAGO BAR ASSOCIATION.

THE County of Cook was organized by an act of the legislature, approved January 15th, 1831. The act creating the county named Chicago as the county seat, and provided that an election should be held on the first Monday in March following to choose one sheriff, one coroner, and three county commissioners. One of the sections stipulated that the public buildings should be located "on the public square, as laid off by the Canal Commissioners on the south side of the Chicago river." A "court house and jail" was also provided for, as well as a ferry at the "seat of justice." The board of County Commissioners was usually referred to as a "court," for the reason that in 1819 the legislature established a court of record in each county composed of three county commissioners, to be called the "County Commissioners' Court." This court had jurisdiction over the public roads, canals, toll bridges, licensing ferries and taverns, but without any original jurisdiction in civil or criminal suits except in cases where the public concerns of the county were involved. The constitution adopted in 1848 provided that the jurisdiction formerly exercised by the County Commissioners' Court should be transferred to the Board of Supervisors.

Up to this time the occasional requirements of justice were fulfilled by justices of the peace from those counties in the central portions of the state having a vast extent of territory lying within their jurisdiction, as described in a previous chapter of this history on the early counties of the state.

By an act of February 16th, 1831, it was provided that Cook County, together with fourteen adjacent counties, should be formed into the Fifth judicial circuit, that there should be two terms held annually in each of the counties named, and that Richard M. Young, should perform the duties of circuit judge. Judge Young was one of the circuit judges elected by the general assembly under the constitution of 1818. He was afterwards a United States Senator from Illinois.

It was said by Thomas Hoyne in a lecture delivered in 1881, on "The Lawyer

as a Pioneer," that "the first term of the circuit court held in Cook County was in September, 1833;" that the judge was Hon. Richard M. Young; and that he came again in May, 1834, and held court "in an unfinished frame or wood tavern, known as the Mansion House, upon Lake Street, opposite the present Tremont House."

Judge Caton in his later years recalled that the first term at which there was any law business done was in May, 1834, and that if court was held in the previous September there had been no cases before it. The reason for his belief that the term of court held in May, 1834, was the first, is that he himself, then a young lawyer, had a case before the court at the latter date, and he remembers that it was "Number One on the docket of the Circuit Court of Cook County," and he believes that this was "the first ever tried in Chicago in any court of record."

JUDGE CATON'S EARLY RECOLLECTIONS

In 1871, Judge John D. Caton made his last appearance in court. It was at the trial of a case before the Cook County Circuit Court held July 26th, of that year. Judge Caton was counsel for the defendant in the case of Milward et al. v. The Western Union Telegraph Company, and at the conclusion of his argument he took occasion to refer to the early days of his practice. "It is now more than thirty-eight years," he said, "since I commenced my professional career in the little hamlet where this great city now stands. Its site was then covered with wild grass, or native and tangled shrubs, while the river was broadly bordered with aquatic vegetation, leaving a deep channel along its center of clear and wholesome water, which was used exclusively for culinary and drinking purposes. Our two hundred and fifty persons were sheltered in rude cabins or small dwellings, and our only streets consisted of winding tracks along the banks of the river, or leading away to the interior.

"Clients were than scarce, but as there were but two of us to do the business, the only rivalry between us was as to who could most zealously serve his client with the greatest courtesy and kindness to each other. The late Judge Spring, who was then my social companion and my only professional competitor, has long since closed his professional career, and passed beyond the precincts of earthly courts, but not until he saw gathered around him a bar distinguished for numbers as well as for its learning. How great the change which these few years have wrought! How few are left of those who lived here then! Their numbers can be told on the fingers of a single hand. With what a throng are their places filled, among whom they are scarcely missed, except by a few old friends who knew them long ago.

"The village has grown into a great city, where hundreds of thousands are hastening with busy steps through the thronged streets, intent upon the accomplishment of individual enterprises, which aggregate into a great whole and make the wonder of the commercial world. . . . This, then, was the only court of record to settle the suits of contending parties, and a single judge, in three days' session, could close the business of the year. Now, seven judges, in almost perpetual session, are unequal to the task.

"Judge Young was your honor's first predecessor, and he here held the first court of record in which I ever appeared professionally. Governor Ford was then State's Attorney in attendance, and also from abroad appeared Ben. Mills, whose

smooth flow of eloquence exceeded that of any man to whom I ever listened. There was also William L. May, of Springfield, and James M. Strode of Galena. James H. Collins had now joined our ranks at home, and he, with Mr. Spring and myself, then represented in this court the Chicago Bar. Though their numbers were but few, many of them have filled large pages in the history of our State, and their names will long be remembered even outside our professional circle. I succeeded Judge Ford upon the supreme bench when he was elected governor, less than ten years after the time of which I speak, and I sat upon that bench with Judge Young after he had served a term in the Senate of the United States; and, in 1846, I sat upon the bench which your honor now occupies, in his place, when he was kept away by sickness. Of all these not one is left! I was the youngest of them all, and I stand here alone, the last representative of the court and bar of Chicago of thirty-eight years ago."

SESSIONS OF COURT IN THE EARLY DAY

In the reminiscent address of Judge Caton here referred to a striking contrast is drawn between the two periods of which he speaks, the period of the early thirties in Chicago and the year 1871. It was less than three months before the great fire when he made this address. "It seems to me but as yesterday," he continued, "when we all first met together in an unfinished loft of the old Mansion House, just north of where the Tremont now stands; and yet the changes about us have been such, as, in other times and in other countries, centuries would not have accomplished.

"The great advance in the arts and sciences, which one might think had culminated in our day, have made this progress possible, so that only when memory spans the space between now and then does it seem so short; when the mind slowly and carefully retraces the way, nothing but the important incidents strewn along the path, then it is that the road seems long. The years of patient and unflagging toil; the thousand obstacles met and overcome; the difficulties and uncertainties attendant upon every step of human progress; the hopes realized or broken; the ambition gratified or blasted; alternate success or failure which have left their record on the human mind,—all these tell us how long the way has been; and as advancing years slowly creep upon us, we feel less and less inclined, were the offer made us, to take the chances of another journey over the road of life, though the first may have been full of happiness, the memory of which alone is the sweetest joy, and though more than ordinary success may have crowned our efforts.

"The incident to which I have referred may serve to explain why I have felt a desire, after a lapse of thirty years, to appear again, and, probably, for the last time in this court in the simple capacity of a lawyer. Here I commenced my professional life. In this court I first appeared as an advocate. This was the first court of record which I ever addressed, and before it I first addressed a jury. The place, too, has its pleasing associations. Although for may years official duties required my residence in another city, yet Chicago was my first Western home, and has ever seemed more than half a home to me. The uniform kindness, cordiality, and support which I have ever received from her citizens, as well those who came after I left as those who were my neighbors before, have made me always feel at home here; and the respect and consideration which the bar of this city has ever manifested toward me have most keenly touched my sensibilities, and left an in-

delible impression on my mind. Again have I appeared in the Cook County Circuit Court, and have done the best I could respecting a client's cause. Again have I received a patient and attentive hearing, and now with gratified satisfaction I retire, deeply sensible of the indulgence shown me, wishing your Honor and my professional brethren long and happy lives, crowned with honor and with usefulness."

THOMAS HOYNE IN CHICAGO

A man who for forty-six years adorned the legal profession in Chicago, from the time of his arrival in 1837 to that of his death in 1883, was Thomas Hoyne. Not only as an upright citizen was Hoyne known to the people of Chicago, but as a man whose sympathies were always with the best and highest things which contributed to the public welfare.

A self educated man he appeared in Chicago in September, 1837, when he was only twenty years of age, arriving here at the end of a month's journey from New York, where he had been born and brought up. In an address made before the Chicago Bar Association in 1881, Mr. Hoyne spoke of his early experiences, how he left New York city while a student of law, and at Detroit took passage "on the brig *John H. Kinzie,* which landed me," he said, "after a two weeks' tempestuous passage at one of the two only docks then upon the Chicago river. These docks were on the North Side, immediately adjoining the site of the present Rush street bridge. Here was then the great tavern or hotel known as the Lake House, just erected. There was also to be seen the tower of St. James Episcopal church—then the only brick meeting house in Chicago. . . . At that day all the fashionable stores, the leading society people, and the handsomest dwelling houses, were on the North Side. It indeed strongly insisted upon being the main side and future city.

"But I did not stay long on that side. Chicago river was crossed at Dearborn street by the only bridge with a draw raised by chains and crank, and to that bridge I hurried upon that September afternoon. My objective point was the Chicago courthouse, or clerk's office, where I was to find the earliest friend and companion of my boyhood, the late George Manierre, who was then deputy of the circuit court clerk, Colonel Hamilton. We had parted in sorrow from each other two years before at a dock in New York.

"As I sped on my way on foot, with satchel in hand, along the high rank grass of streets newly opened, I was fain to observe the length of the streets laid out without either sidewalk or house. I stood upon that antique bridge. I looked towards the junction of the streams, up to what is now West Water street, and for the first time caught glimpses of that mighty land, the 'far-off West' of my imagination; it had gilded my dreams of the future, and bounded every possibility of my life. I stood upon that antique bridge and recalled Byron's 'Bridge of Sighs,' but instead of a 'prison and a palace' here was a bridge with a past and future upon each hand.

"All along these level banks and beyond these river shores shone the brightest of skies, bending down upon those untenanted fields—wild in their vastness and glory—the same as they had appeared to human eyes for thousands of years." The newly arrived young man was stunned when he came into view of the courthouse in the public square where "stood boldly out the columned Greek portico" in classical outline before his gaze. Here he found his old friend, George Manierre, "alone

among the papers and records of the clerk's office, of which he seemed the sole custodian."

HOYNE ENTERS UPON A LEGAL CAREER

On his arrival in Chicago young Hoyne at once found employment in the Circuit Clerk's office, and while here he diligently pursued his legal studies. Among the residents he soon found those of congenial tastes, for from the earliest period Chicago was fortunate in the character of her incoming population numbering among her citizens men and women of culture, education and ability in the conduct of affairs. This class of people naturally were leaders in the community. Among these Hoyne formed pleasant associations and connected himself with a flourishing literary society. "Ere long his voice was often heard in its discussions, his genial manner, evident sincerity, and the mental vigor that found expression in his speeches, winning for him a high place in the esteem of his fellow members." In 1839 he was admitted to the bar, and commenced the practice of his chosen profession.

The future career of Thomas Hoyne forms a record that the bar of Chicago regards as one of the brightest pages of its annals. "As a lawyer," to quote the words of an anonymous biographer, "Mr. Hoyne grew with the strength of the city. While yet a young attorney he was recognized as a man of intense earnestness and unbending will. Whatever he assumed to do, he did with all his might. In those days the interests involved in litigations were not often large in a pecuniary sense, and the practice was necessarily a general one, there being no specialties. Every lawyer was ready and glad to devote his attention to criminal, patent or admiralty cases.

"The criminal practice was very different then from what it is today. In that branch the rising young men of the profession in Chicago saw their best opportunity to attain distinction, and in that arena were made the brilliant displays of oratory which attracted the attention of the people. Mr. Hoyne took his full share of the practice, and his reputation as a successful criminal lawyer extended through the state. His forcible style of speaking, and the animation of his whole figure, his emphatic gestures and flashing eyes carried with them the conviction of earnestness and sincerity on the part of the orator—a conviction always potent with the jury as well as with the popular audience.

"But as the population of the city increased, the criminal practice gradually took on new phases that were not agreeable with his methods as a lawyer, or his sense of right, and he left that field to others, preferring to devote his attention to a business involving important questions of commercial and real estate law. But his power as an advocate did not diminish, and he never yielded his place in the front rank of orators. His great strength, however, lay in that complete mastery of a case which is generally achieved at the desk, and by a survey of the authorities whose wisdom is found crystallized in the volumes of the law library. In the latter part of his life his energies were devoted to work of much more than temporary interest, the value of which is least understood by the world outside, but is recognized by the profession as the most valuable and enduring part of a lawyer's life work."

After the death of Mr. Hoyne it was said of him by Judge Moran, in a speech at the Iroquois Club, "He has left his impression on the city of Chicago. He was an ideal citizen of Chicago. He heartily participated in everything that was undertaken for the benefit of the city. He helped it along, and he was a hot and

heavy antagonist of everything that he regarded as being against its interests, and nothing of that kind triumphed without a fight with Thomas Hoyne. I cannot help thinking that when some scheme of plunder is devised in this city; when some intrigue comes to light—as it may come in the future—winding itself about the municipality, shall we not stand and say, 'O for thirty minutes of honest Thomas Hoyne's hot indignation to arouse honest men, and to strike terror to schemers!' "

MELVILLE W. FULLER

Among the men of Chicago who have risen to eminence the name of Melville W. Fuller is enrolled near the head. Coming to Chicago in 1856 he carried on the practice of his profession as a lawyer for thirty-two years, and until his appointment by President Cleveland to be Chief Justice of the United States Supreme Court, in 1888.

Melville Weston Fuller was born February 11th, 1833, at Augusta, Maine. He received his education at Bowdoin College and entered upon the study of law in Bangor, and, according to the custom of the time, in the office of a practicing lawyer. During his legal studies he spent a year at the Harvard Law School, then under the direction of Joel Parker, Theophilus Parsons and Emory Washburn, excellent lawyers and great teachers.

In an address before the Chicago Bar Association, Judge Edward O. Brown said: "But though in the office and law school young Fuller had received the technical legal education, the development of which thereafter was to place his name on the roll of fame, it was in his previous academic course at Bowdoin College, if we may trust his own words thirty-five years later at a commencement dinner, that the foundations of his character and general culture were firmly laid. Speaking then of his teachers at Bowdoin he said: 'They labored to ground the student in the eternal verities, which would enable him when rains descended, and winds blew, and the floods came, to withstand the storm as only one can finally do whose feet are planted on that rock.'

"Well did this gentle but courageous soul—this kindly, patient, much-enduring man exemplify in after years the spirit in which he had taken his teachers' lessons. Tried by private griefs which tore his heart asunder in the midst of worldly success, he faced good and ill fortune alike with heart undaunted and faith in God and his fellow men unabated.

"In 1856, he had begun to practice law in his native city of Augusta. He had always a keen relish and taste for participation in public affairs, and at the outset of his career he combined with his budding practice, editorial writing for a Democratic newspaper, and became a member and president of the City Council of Augusta.

"But the call of the West was even stronger then for Eastern youths than now. Thinking perhaps of the wonderful success which twenty years before his political leader Douglas had won in the decade after his arrival in Illinois, Mr. Fuller came to Chicago before his first year at the bar had ended. He entered the office of the late S. K. Dow, a former townsman and acquaintance, at a salary of six hundred dollars a year.

"The rapid and spectacular rise to eminence and power of his leader and his future close friend Douglas Fuller did not have, but a little more than thirty

MELVILLE W. FULLER

ISAAC N. ARNOLD

JUVENILE COURT BUILDING, EWING STREET, NEAR HALSTED

Dedicated August 7, 1907

years afterward, speaking of himself to his comrades at the bar, he could say: 'It has come to pass that as the star of empire moving westward hangs fixed and resplendent above the glorious valley of the Mississippi, a member of this bar and a citizen of Chicago has been designated to the headship of the mightiest tribunal upon earth. Of that tribunal or the grave and weighty responsibilities of that office it does not become me now to speak, nor could I, if it were otherwise appropriate, for I am oppressed with the sadness inevitable when one after long years of battle puts his armor off and retires from the ranks of his comrades.'"

FULLER'S RISE TO HIGH DISTINCTION

Judge Brown in his address spoke of the fact that at the time of his appointment Fuller was comparatively an unknown man. Concerning this he said: "If he had not sooner achieved distinction in the world of politics and statesmanship, and thus become more widely known throughout the country, it was because during his rise at the bar the political party of his choice and deep conviction was out of power in state and nation. He had been a leader and wise counsellor in that party here at home, as we who were connected with it all know; representing it in the Constitutional Convention of 1861, and the Legislature of 1862, and becoming, in a succession of its national conventions, a leading figure among its Illinois delegates. I remember in his later years his deploring to me, that because of his intense interest in securing among the declarations of the National Democratic platform of 1864 one in favor of the Monroe Doctrine and against the European usurpation in Mexico, he had allowed to stand without sufficient protest that pronouncement of the convention concerning the failure of the Federal arms in the Civil War, that its candidate General McClellan so promptly repudiated."

In the course of his address Judge Brown referred to Fuller's law practice while in Chicago. "It is enough to say," he continued, "that with ardor and success he devoted himself to the duties of advocate and counsel for his public and private clients, and that although offered the most important and desirable of permanent corporation employments, he would bind himself for no continuous service to one client or set of clients, preferring the free hand and the life of the lawyer of the elder time. Through all his life he was in his profession as in other things a high-minded conservative, doing the best to make the law a noble and ennobling profession and no mere huckstering trade. Prudent and thrifty as every man ought to be, and abhorring debt, he was never mercenary, avaricious or grasping. . . .

"And now we turn from the rising lawyer, the successful advocate and wise counsellor, to regard a clear-brained, simple, strong, single-hearted man, a patient, upright, self-restrained, quietly dignified judge, who for almost a quarter of a century filled the most exalted judicial seat of the world. He was the eighth Chief Justice of the United States. I do not intend to indulge in fulsome eulogy. I will not say that he equalled John Marshall in scope of intellect and keenness of appreciation of the great principles of jurisprudence, but I will say that in that great place he was no unworthy successor in the line. . . . That the late Chief Justice or any other judge who ever sat in high place was, in the performance of his duties, always ideally wise and great, were a vain and foolish thing to say. Chief Justice Fuller will not, either in the decisions which he formulated for his

brethren or in those in which, faithful to his high convictions of duty, he dissented from the majority of the court, be adjudged always right by the new age fast driving upon us its new ideals, its new aspirations, and its new standards of thought and social ethics. Some of them will stand the test of time as some of those of his predecessors have done; others of his, as of theirs, as time sweeps on, will doubtless be but historical marks that show the line at which the flood then rested."

Chief Justice Fuller died on the 4th of July, 1910, at his summer home near Bar Harbor, Maine. He was seventy-seven years old at the time of his death.

Of the opportunities of such a position as that held by Chief Justice Fuller for a period of almost twenty-two years, the "World" newspapers said editorially:

"To be Chief Justice of the United States Supreme Court is to wield a power that no other judge in all the world wields, and the man who holds that great office for twenty or thirty years leaves his indelible seal upon the life of the nation."

ISAAC N. ARNOLD

"In October, 1836," said Judge Henry W. Blodgett in an address on the "Early Bar of Chicago," given in 1896, at Springfield, "the bar in Chicago received an accession to its members in the person of Mr. Isaac N. Arnold, then about twenty-three years old." He came from New York state, and while as yet without much experience he "was resolute and industrious, and soon attracted the attention of the men who had occasion to employ a lawyer. Such was his skill, ability and fidelity to those who gave him employment, that he rarely lost a client who had once retained him. He rose rapidly in his profession, and soon secured a high position which he ever after maintained.

"From 1838 to 1870 his name probably appears on the records of the local courts and in the Supreme courts of the state and nation as frequently, and in as many important cases, as that of any other Chicago lawyer. . . . He was not eloquent any further than a clear and logical statement of the case and the reasons in support of it are eloquent, but he was always well prepared."

Mr. Arnold was an intimate and confidential friend of Lincoln, both before and after his election to the presidency, and his "Life of Lincoln," says Blodgett, "is one of the most correct and reliable of the many biographies of that celebrated man." In 1844, Mr. Arnold was a presidential elector on the Polk ticket, but, says a writer in the "Historical Encyclopaedia of Illinois," "the repeal of the Missouri Compromise, with the legislation regarding Kansas and Nebraska, logically forced him, as a free-soiler, into the ranks of the Republican party, by which he was sent to Congress from 1861 to 1865."

A HOT TEMPERED GENIUS

Judge Blodgett, in his pamphlet, relates some interesting details respecting a lawyer of the early day, who had a brief but checkered career in Chicago. No sketch of the early bar of Chicago would be complete, says Blodgett, "without notice of the gifted, learned and erratic Edward George Ryan, although he was only for comparatively a few years a resident there.

"He was born in Ireland in 1810, graduated from Dublin University with high

honors, and afterward took a course at one of the law schools in Paris, and came to Chicago in the fall of 1836, and soon made himself felt in the profession. Probably no lawyer of his age ever came to Chicago who was so well qualified by his education for his chosen profession. He was an accomplished scholar, both in legal lore and general and historic literature; was an interesting and impressive speaker, with power to excite at will the sympathies or passions of his hearers. He could be argumentative, witty, sarcastic, ironic and pathetic as occasion demanded. He had an extraordinary memory and could draw, when needed, upon his whole course of reading and study.

"In the course of his study in Paris he had obtained access to 'The Jesuit Relations,' giving a full account of the early Jesuit Missions in North America, and when started upon the subject he would talk by the hour describing the hardships, self devotion and suffering of those old missionaries, since so graphically described by Parkman and other historians. He soon formed a partnership with Henry Moore, then a lawyer and in practice there, and afterward became a partner with Hugh T. Dickey, then a rising lawyer. But neither of these relations lasted long.

"In the spring of 1840, he tired for a time of the law, and started a newspaper which he called the *Chicago Tribune,* being the first to appropriate the name 'Tribune' for a newspaper. This he conducted about a year, and into it he infused all the vigor, learning, and impetuosity of his intense personality, and in doing this he provoked quarrels which culminated several times in street fights. . . . After about one year he abandoned the publication of the *Tribune* and resumed the practice of the law; but a short time later he left Chicago and went to Racine, Wisconsin, where he remained two years, and then went to Milwaukee, where he spent the remainder of his life."

It may here be remarked that the *Tribune* above referred to ended its career some years before the Chicago *Tribune* of a later day began publication, the latter making its first appearance on July 10th, 1847. The *Tribune* conducted by Ryan was a weekly, and is described as being a sheet eighteen by twenty-four inches in size. A reduced fac-simile of this paper may be seen in the first volume of Andreas' history of Chicago on page 403.

Many other names might be mentioned in this history, names of men who were ornaments to the bench and bar of Chicago, but it is only possible to refer to a few whose careers were typical of a large class of men eminent in law and politics.

THE JUDICIAL SYSTEM OF THE STATE

In an address delivered at Springfield in 1902, by Hon. Orrin N. Carter before the County Judges' Association, he gave an interesting historical sketch of the courts of Illinois. Some portions of the address are summarized in the following paragraphs.

The first constitution of the state of Illinois was authorized by Congress in 1818, and was adopted in August of that year. The judicial power of the state was vested in one Supreme court, and such inferior courts as the General Assembly should from time to time establish. The Supreme court was to consist of a chief justice and three associate justices, with authority to increase the number of the

latter. In 1824, the number of the associate justices was increased to five, and in addition five circuit judges were provided for.

In 1835, each circuit judge was authorized to appoint in his own judicial circuit a competent person as a Master in Chancery to be paid by fees. "This appears to have been the first time that masters in chancery were appointed in this state, but the practice has been regularly followed since." In 1841, the circuit judges were legislated out of office, and in their places five additional supreme judges were provided for, and thereafter in the nine circuits into which the state had been divided supreme court judges were required to hold circuit court. This system continued until the Constitution of 1848 was adopted.

THE CONSTITUTION OF 1848

The changes made under the Constitution of 1848 resulted in the following arrangement of courts and judges: "The judicial power was vested in one Supreme court, Circuit courts, County courts, justice courts, and such inferior local courts of uniform civil and criminal jurisdiction as might be established by the General Assembly in the cities of the State."

The new constitution provided that the judges of the Circuit court of circuits then in existence should "have jurisdiction in cases at law and in equity, and in all appeals from inferior courts." The number of circuits in the state was increased from time to time thereafter until the adoption of the Constitution of 1870, when we find the state divided into thirty judicial circuits.

It is interesting to note that in February, 1849, the law as to the Cook County court, established in 1845, was changed, so that the judge was elected on the first Monday of April of that year and every four years thereafter. In December, 1849, the title of this court was changed from the Cook County Court to the Cook County Court of Common Pleas. The name of this court was again changed in February, 1859, to the Superior Court of Chicago.

"What strikes one most forcibly in a study of the history of the courts of this State," remarks Judge Carter, "is the many and frequent changes not only of the courts themselves but of their jurisdiction. From the first our legislatures seemed to have had a chronic habit of making such changes at almost every session of the legislature. Possibly these changes have not been as numerous in the last fifty years as in the first half of the last century, but they are still too frequent. Courts should not be reorganized or their jurisdiction modified unless those who are familiar with their workings are practically united in favor of the change. After a statute has been construed by the courts and has been found to work fairly well it is a mistake to attempt to revise the whole act because of a few small defects. Nothing can be more hurtful to good government than to change, without good cause, the means or modes of obtaining justice in our courts."

Judge Carter's long experience as a County judge, and in later years as one of the Supreme court judges (and in this year, 1911, as Chief Justice), entitles his opinion to unusual consideration.

THE PRESENT STATUS OF OUR LOCAL JUDICIARY

According to Greene's "Government of Illinois," there are now provided for Cook County and the City of Chicago by state law the following courts: "For the

organization of the Circuit courts," says Greene, "the state is now divided into eighteen judicial circuits. Cook County makes a circuit by itself, but elsewhere three or more counties are combined. In each circuit except Cook County three judges are elected on a general ticket once in six years. The sessions of the Circuit court are held in succession in each county of the circuit, and at every such session or term one of the Circuit judges, and one only, must preside. The distribution of this work is arranged by the judges among themselves. In Cook County, legal business is so much greater that the number of judges is made much larger. Provision is also made for two special courts known as the Superior Court of Cook County, and the Criminal Court of Cook County, each of which does some of the work which would elsewhere be done by the Circuit judges. The general rule of the constitution is that the Circuit courts have original jurisdiction of all causes in law and equity. This means that the trial of any case may be begun in these courts. The Circuit judges may also hear appeals from decisions of the County and other local courts.

APPELLATE COURTS

"Next above the Circuit courts are the Appellate courts. The law now provides for four Appellate court districts. Cook County again constitutes one district, and there is one each for the northern, central, and southern sections of the state. No judges are specially elected for this service, but in each district three Circuit judges are assigned by the Supreme court for three years' work in the Appellate court. These three judges then choose one of themselves as presiding justice. The Appellate courts hear appeals, in certain cases, from the Circuit and County courts. On account of the overcrowding of the Appellate court of Cook County, the legislature, in 1897, provided for a branch Appellate court, to be formed by the assignment of three more Circuit judges."

THE MUNICIPAL COURT OF CHICAGO

On May 18th, 1905 an act was passed by the legislature establishing "The Municipal Court of Chicago." The jurisdiction of this court was defined as follows: "All actions on contracts, express or implied, when the amount claimed by the plaintiff exceeds one thousand dollars, and all actions for the recovery of personal property or for the recovery of damages for the conversion of or injury to personal property, when the value of the property or the amount of damages sought to be recovered as claimed by the plaintiff, exceeds one thousand dollars, and which, for convenience, will be designated as cases of the first class," may be tried in this court.

There are in all five classes of cases that may be tried in the Municipal court which are defined in the statute. There are also five districts in which sessions of the court may be held, located in different parts of the city. The number and boundaries of the districts may be changed from time to time by a majority of the judges of the Municipal court, with the approval of the City Council. "As many branch courts shall be held in each district as may be determined by the chief justice of the Municipal court, but at least one branch court shall be held in each district."

It was also provided that "the Municipal court shall consist of twenty-eight judges, one of whom shall be chief justice, and the other twenty-seven associate judges." There is also a provision that the number of associate judges may be increased "whenever two-thirds of the judges of the Municipal court shall transmit to the City Council a certificate signed by them, that in their opinion an increase in the number of associate judges is needed;" and the City Council may by ordinance provide for an increase "of not more than nine in the number of judges."

THE JUVENILE COURT

The act creating the Juvenile Court was prepared by Hon. Harvey B. Hurd, whose successive editions of the "Revised Statutes" are so well known to the legal profession. Mr. Hurd, in collaboration with the Visitation and Aid Society representing the great Catholic interest, prepared a bill which was presented to the legislature, and the same was enacted April 21st, 1899, and went into effect on the first of the following July. On its passage through the legislature it received the support of Timothy D. Hurley, and Judge Orrin N. Carter, then County judge. Others who assisted in the movement were Ephraim Banning, John W. Ela, Edwin Burritt Smith, and Merritt Starr. This list might be extended indefinitely.

The purposes of the Court may be briefly stated to be as follows: "The Juvenile Court hears and disposes of cases brought before it under the act to regulate the treatment and control of dependent, neglected and delinquent children." The purpose of the Juvenile Court, as defined by the law, is: "That the care, custody and discipline of a child shall approximate as nearly as may be that which should be given by its parents; and in all cases where it can properly be done, the child to be placed in an approved family home and become a member of the family by legal adoption or otherwise."

"The law," says the writer of the programme printed for the dedication, "makes the judge the adviser and friend of the child, and imposes on him the duty of surrounding the child, so far as he may, with wholesome, moral influences. Through the probation officers the court, in effect, provides the child with a substitute parent and home influences, where he has none, or where they are immoral or criminal. The theory of the probation service is that the delinquent or neglected child should, if possible, be developed into a useful citizen in his own home. Carrying out this theory the law permits the probation officer to enter the home for the purpose of removing the child's evil surroundings and improving his moral and physical condition. This mission, if properly performed, benefits parents as well as child."

THE JUVENILE COURT BUILDING

A building for the use of the Juvenile court service was dedicated August 7th, 1907. This building is situated on Ewing street, near Halsted, and was built and paid for by the County and City authorities in co-operation with each other. It has a frontage of one hundred and nine feet, with a depth of one hundred and six feet, and is three stories in height. It is constructed of red brick with stone trimmings, in a thoroughly fireproof manner.

"The new Juvenile court building," as described in the programme printed at the time of its dedication, "has been constructed and arranged with a view to

preventing the impression being made on the child or on his parents or friends that he is being tried as a criminal. The hearings will be held in a room fitted up as a parlor rather than a court, around a table instead of a judicial bench. Only the child and its parents and friends, the probation officer and court attendants will be present. The child's story will be told without the formality of an oath. The hearing will be in the nature of a family conference, in which the endeavor will be to impress the child with the fact that his own good alone is sought; that the intention of the court is to help him to self-respect and self-control.

"Beyond the mere fact of detention, the Detention Home will possess none of the features of a prison. The child will be housed and fed and given parental care while awaiting a hearing. Medical attention, school facilities, baths, rooms for play and means of amusement will be provided. In short, it is the purpose to make the Detention Home a home in the best sense of the term."

RESULTS OF THE WORK

The humane work done by this court in caring for the welfare of neglected children can be only comprehended properly by an examination of the treatise compiled by Mr. T. D. Hurley and printed in 1907, a small volume which should be in the hands of every friend of humanity, and which can be had for the asking. The results obtained are set forth in this little volume with great fulness.

Judge Murray F. Tuley said of the law creating the Juvenile court: "This is the greatest law ever enacted by the State of Illinois. I have such a high appreciation of the lasting benefits that must follow the judicious administration of this act, it would be with great reluctance that I throw anything in the way of its operation. I believe that it is effecting more good in this city and county than all that the Criminal court could possibly effect, and that it will effect more good in one year than the Criminal court can, by punishment, effect in ten years, or even twenty."

When Judge Richard S. Tuthill presided at the first session of the Juvenile court in Chicago, held in July, 1899, he said: "The probation feature in my judgment is the keystone which supports the arch of the Juvenile law, an arch which shall be as a rainbow of hope to all who love children and who desire that all children shall be properly cared for, and who would provide such care for those who, without it, would inevitably lead vicious and criminal lives."

THE CHICAGO BAR ASSOCIATION

The date of the charter of the Chicago Bar Association is May 27th, 1874, the charter being signed by George H. Harlow, Secretary of State. The first Board of Managers named in the certificate accompanying the charter of the Chicago Bar Association consisted of thirteen persons, namely: William C. Goudy, Thomas Hoyne, Wirt Dexter, Stephen A. Goodwin, Murray F. Tuley, Charles M. Hardy, Lyman Trumbull, A. M. Pence, Edwin C. Larned, Ezra B. McCagg, William P. Black, and William H. Barnum.

The certificate was signed by six persons, as follows: Charles M. Sturges, James P. Root, C. B. Lawrence, Charles Hitchcock, Robert T. Lincoln, and Ira O. Wilkinson.

The "particular business and object" of the Association was stated to be "to establish and maintain the honor and dignity of the profession of law, to cultivate social intercourse among its members, and to increase its usefulness in promoting the due administration of justice."

The by-laws provided that "the members of the legal profession practicing in the City of Chicago, whose names appear on the roll at the end hereof, are hereby declared to be members of this Association." The list of names on the roll referred to comprises two hundred and twenty-eight names.

In the annual report of the Chicago Bar Association for the year ending June 24th, 1911, it is stated that there were at that date 1,669 members, and that the income of the association was $17,002. The library is arranged in a suite of rooms in the Fort Dearborn building readily accessible to members.

CHAPTER LVIII

BANKS AND BANKING—MAYORS OF CHICAGO, ETC.

BANKING RESOURCES OF CHICAGO—HISTORICAL REVIEW—GEORGE SMITH & CO.—MERCHANTS LOAN & TRUST CO.—EXPERIENCES IN GREAT FIRE—PROMPT RECOVERY AFTER HEAVY LOSSES—LATER HISTORY OF BANK—FIRST NATIONAL BANK—LOSSES IN THE GREAT FIRE—CHANGES OF LOCATION—PRESIDENCY OF SAMUEL M. NICKERSON—RAPID GROWTH OF THE BANK—THE PRESENT BANK BUILDING—STATISTICS OF ALL BANKS—MEDICAL HISTORY—RUSH MEDICAL COLLEGE—COUNTY HOSPITAL—DR. NATHAN S. DAVIS—CHICAGO SKYSCRAPERS—MAYORS OF CHICAGO—SKETCH OF HYDE PARK.

BANKS AND BANKING

DURING the past two decades the bank deposits of Chicago have increased nearly tenfold, and the banking resources of the territory surrounding this metropolis of the West have probably grown in a still larger measure. From whatever standpoint one may view these facts, they proclaim the national independence of the West, and emphasize its growing power and influence in the affairs of the nation." Thus writes Mr. George M. Reynolds, the president of the Continental and Commercial National Bank, in a short introduction to the subject of Banks and Banking, printed in the "Book of the Board of Trade," for 1910.

"The prodigious wealth," he continues, "which finds expression in bank reports and clearing house statistics in these Western commonwealths represents the tribute of a fertile soil to human industry; and its legitimate employment in the fields of commerce and manufacture gives profitable employment to millions of workers."

It was a saying in the "wild cat" times, when every kind of financial heresy was rampant in the land, that "illegal banking honestly conducted was better than legal banking dishonestly conducted." Throughout the middle decades of the last century the business of the country was continually menaced by the widespread practice of "wild cat" banking. The idea of regulating the banking business by law was a favorite one with legislators, and there were laws in every state, most of them at variance with each other, intended to regulate the business of banking. The situation, however, was not much helped by these attempts to place a curb upon speculative individuals who found in the conduct of banks a profitable channel for their operations.

This state of things continued until the period of the Civil War, when the National Banking Act was substituted for the discordant state laws, and since that time the entire business of banking has been greatly improved, and the tendency is constantly towards a higher standard of safety in accordance with the practice of sound principles of finance.

We have dwelt sufficiently on the confusion and distress caused by the loose banking methods prevailing during the times we have referred to in a previous portion of this history, while narrating the extravagances and excesses of the "Era of Internal Improvements."

An old time banker who must be mentioned was George Smith. "In 1840," says Moses, "the banking firm of George Smith & Co. was established, and continued to be the leading house for about sixteen years, when it dissolved, and the senior partner retired to his native Scotland with an ample fortune and a reputation of being one of the shrewdest and most enterprising business men, who had up to that time made Chicago their home. George Smith at Chicago, and Alexander Mitchell at Milwaukee, were two Scotchmen who came to this country about 1836, and enjoyed a most successful career in finance and other enterprises."

THE MERCHANTS' LOAN & TRUST CO.

The oldest institution among the banks of the present day is that known as the "Merchants' Loan & Trust Co.," which began business June 10th, 1857. Its original title was the "Merchants' Savings Loan & Trust Co." Its incorporators were William B. Ogden, Francis B. Cooley, Nathaniel P. Wilder, Henry Farnam, Samuel P. Officer, John High, Jr., Erastus S. Williams, Henry W. Hinsdale, John W. Stanley, John P. Babcock, Charles Hitchcock, D. R. Holt, R. W. Officer and associates.

The capital stock of the company was fixed at $500,000. The officers chosen by the board of nine trustees were John H. Dunham, President, and A. G. Hammond cashier. Dunham was succeeded by Henry Farnam who however served but a short time when he was succeeded by Solomon A. Smith. Smith continued as president until his death November 25th, 1879. Hammond, the cashier, did not remain long returning to Connecticut whence he came soon after the bank was established. He was succeeded by D. R. Holt who in turn was followed, in 1862, by Lyman J. Gage. Gage afterwards went to the First National Bank of which he became the cashier in 1868. Charles Henrotin was cashier at the time of the great fire, October 9th, 1871.

DESTRUCTION OF THE ACCOUNT BOOKS

The experiences of the president, Mr. Solomon A. Smith, the cashier, Mr. Henrotin, and one of the book-keepers, Mr. Lathrop, at the time of the fire, are recorded in the minute book of the bank in the form of a report written by Mr. Henrotin. On Sunday the 8th, when the fire was threatening to consume the entire business district, the gentlemen mentioned hastened to the bank to make sure that the books and valuables were securely locked up in the vaults. "It was well remembered that but a few years before," says the report, "our vaults were, at considerable expense, put in what was then believed to be the best of condition, and were then inspected and pronounced fireproof by our architect. Our money and book vaults were consequently considered safe, but, as a measure of greater prudence, it was resolved to direct at once all our efforts towards placing our money and other valuables beyond the reach of the destroying element."

The money, checks and discounted bills with collaterals were taken from the safe, the doors of the vaults closed and the bank doors locked. Burdened with this precious load and not in the least intimidated by the danger of being robbed by the mobs of the streets, all three started for a place of safety. Through streets filled with dense smoke and burning cinders, or obstructed by crowds of half demoralized people, the valuables were carried from one place of refuge to another until they reached a place deemed sufficiently secure, some two miles from the starting point.

But though fortunate in saving all the valuables they were not so successful with the account books which had been left in the vaults. After the fire it was found that many of the books and papers were burned or charred beyond any possible recognition. "This seemed to us then an almost irreparable calamity, —some six hundred accounts involving a sum of some two millions of dollars subject to call at a time when the public mind was disturbed and confidence seemed destroyed, to be still without a scrap of paper to indicate their condition."

Eight days after the fire the bank opened for business in the basement of President Smith's house at No. 414 Wabash avenue. Contrary to what might have been expected under the circumstances the close of the first day's business found the bank with more money on hand than it had at the opening. "Our depositors," continues the report, "brought in their accounts for verification as rapidly as possible; every account was accompanied by proofs and affidavits as to its correctness, and when deemed conclusive was admitted at once and passed upon by placing the amount claimed to the credit of the party." [1]

CONDITION OF THE BANK AFTER THE FIRE

As showing the condition of the Merchants' Savings Loan & Trust Co. at that time it is interesting to note a few items in its statement of December 30th, 1871. Since its establishment in 1857 the capital of the bank had been increased to $1,000,000, added to which there was a surplus and accrued earnings amounting to $591,026.01, which represented the strength of the bank. Its resources might be roughly divided into loans and discounts $1,925,611.19, and $1,784,474.07 cash and bonds. The difference between the two sides of this statement was $2,119,059.25, which was the amount due depositors.

At a meeting of the trustees the matter of adjusting the accounts of depositors, the records of which had been destroyed in the fire, were taken up for consideration. The trustees present at the meeting were: Solomon A. Smith, William E. Doggett, Edward K. Rogers, Haines H. Magie, John Tyrrell, and John H. Foster. The cashier reported to the board that "most of the accounts of depositors had been settled and restored upon the books, but that there still remained unsettled a number of accounts of depositors, the amount of whose claims was some $210,000; and that if all these claims were settled and paid the whole amount of deposits allowed would overrun the amount of deposits supposed to be held by us at the time of the fire, some $58,500."

This serious state of affairs was met and disposed of in a broad-minded way by the board, and on motion of William E. Doggett it was resolved that "the

[1] "Fifty Years of Banking," p. 52.

board of trustees, having heard the report of the cashier as to the condition of the old deposit accounts, hereby desires to express their approval of the settlements already made, and at the same time record their opinion that it is to the interest of the institution that the claims remaining unadjusted be settled at the soonest possible day in such a manner as may be deemed best by the president and cashier, believing it better for the institution to suffer the loss estimated by the cashier (some $58,500) rather than be subject to any litigation in court."

The depositors' accounts were satisfactorily adjusted in accordance with the resolution referred to.

OTHER DETAILS IN THE HISTORY OF THE BANK

The location of the bank when it began business in 1857 was at the northwest corner of South Water and La Salle streets, under the Board of Trade rooms. It remained there until 1860, when it was removed to a location at the southwest corner of Lake and Dearborn streets, where it was established at the time of the fire of October 8th and 9th, 1871. It occupied temporary quarters after the fire in the basement of Mr. Smith's residence at No. 414 Wabash avenue, but, in the spring of 1872, the Manierre building at the northeast corner of Madison and Dearborn streets having been completed, the bank removed to that location. It remained there until 1881, when it was removed to the Portland Block on the southeast corner of Washington and Dearborn streets. In 1900 it took possession of its present quarters in the bank and office building at the northwest corner of Adams and Clark streets.

On the 26th of April, 1881, the name of the bank was changed from its original form to that of the present. After the death of the president, Solomon A. Smith, November 25th, 1879, the board of trustees did not immediately elect a successor, and it was not until January 4th, 1881, that John Tyrrell became president. He was succeeded on January 8th, 1884, by John W. Doane. On January 7th, 1897, Mr. Doane having retired, Mr. Orson Smith, who had previously been vice-president for some years, was elected president of the bank, and has remained in that position up to the present time.

The cashier of the bank at the time of the great fire was Charles Henrotin who retired April 1st, 1878, and soon after was succeeded by Henry E. Lowe. He in turn was followed by Frank C. Osborn on February 4th, 1884. Osborn remained as cashier until his death when the appointment was made, on February 13th, 1895, of John G. Orehard, who still retains that position.

The membership of the board of trustees was increased to thirteen in 1890. According to the statement of the bank dated September 2d, 1911, the capital is stated to be $3,000,000, to which may be added its surplus fund and undivided profits amounting to $6,328,809. The amount due depositors is stated to be $59,874,565.

The board of trustees of the Merchants' Loan and Trust Co. consists of the following gentlemen: Enos M. Barton, Clarence A. Burley, E. H. Gary, William A. Gardner, Edmund D. Hulbert, Chauncey Keep, Thies J. Lefens, Cyrus H. McCormick, John S. Runnels, Edward L. Ryerson, Orson Smith, and Moses J. Wentworth.

OLD FIRST NATIONAL BANK BUILDING IN 1868,
CORNER WASHINGTON AND STATE STREETS

THE FIRST NATIONAL BANK

When the National Banking Act was passed February 26th, 1863, there was organized the First National Bank of Chicago, which began business on the first of July following. Edmund Aiken was the first president, and Edward E. Braisted cashier. The capital stock was placed at $250,000. The stockholders in the new bank were; Edmund Aiken, Byron Rice, Benjamin P. Hutchinson, Tracy J. Bronson, George N. Kennedy, Samuel M. Nickerson, Samuel W. Allerton, John B. Sherman, James C. Fargo, and Samuel G. D. Howard.

The bank began business at No. 22 La Salle street. The capital was increased to $1,000,000 on January 2d, 1865. In the spring of 1868 a five-story and basement building was erected at the southwest corner of Washington and State streets, to which the bank was removed. Here the bank continued until the great fire of 1871 ruined the structure, leaving the walls standing however. The safes and vaults withstood the heat of the fiery furnace and nothing of value was destroyed. The notes, securities and books were preserved intact. Temporary quarters were found first in the old Burlington warehouse at the corner of State and Sixteenth streets, then in a building on Wabash avenue near Twelfth street, and afterwards in a frame structure erected on the former site of the Crosby's Opera House. By the beginning of the year of 1872 the bank's location was established in its former building which had in the meantime been thoroughly restored.

Before the period of the fire Mr. Aiken, who had died early in 1867, was succeeded by Samuel M. Nickerson as president. About the same time Cornelius R. Field became cashier in succession to E. E. Braisted. During the summer of 1868 Field resigned and in July of that year Lyman J. Gage was chosen to the place. The financial condition of the bank at the opening of 1873, a year of panic and disaster, was excellent. On February 28th of that year the deposits of the bank amounted to $3,478,000. The worst days of the depression did not come until autumn, but the bank weathered the storm unharmed. After the crisis had been passed the bank's prestige was so greatly enhanced that it was recognized as occupying the foremost place in Chicago and the West. "To the fidelity and courage of the cashier, Lyman J. Gage, the happy issue from this painful ordeal was chiefly due, as is most fittingly testified in appropriate and eulogistic language upon the record book of the association." [2]

During the summer of 1880 it was decided to look for a new location, and accordingly the northwest corner of Dearborn and Monroe streets was fixed upon. Before the fire the postoffice had occupied this site, and the walls of the structure, which had withstood the effects of the fire in fairly good condition, had been utilized afterwards in the construction of a theatre of which J. H. Haverly was the proprietor. The lot was school property. Haverly was bought out and the bank demolished the old structure. A new building was then erected of which the bank took possession on November 27th, 1882.

TECHNICAL REORGANIZATION IN 1882

When the bank was organized in 1863 the term for which the association was formed was limited to nineteen years, the date of expiration of the term being set

[2] "History of the First National Bank." p. 68.

at April 30th, 1882. "With the advent of 1882," says Henry C. Morris, in his "History of the First National Bank," "the association was necessarily obliged to anticipate the early discontinuance of its activities or at least its technical reorganization. The hope had been cherished that Congress would pass a measure enabling national banks to prolong the term of their existence, or renew their charters upon conditions which might permit them to retain their corporate identity. But such action was not taken, the bill for that purpose pending in the spring of 1882 was long and tediously debated. The first of May, when the privileges of 'The First National Bank of Chicago, Number 8,' would expire, was not many weeks distant.

"After serious consideration, it was therefore determined to be best that the institution should go into voluntary liquidation. Its property was offered for sale; it was resolved that its doors should be closed on Saturday, April 29th, 1882, and all other requisite formalities were executed. Its assets, of course, were without delay transferred to its legal successor, thenceforth known as 'The First National Bank of Chicago, Number 2,670.' Finally the books were balanced and a complete settlement of affairs was made, the stockholders, in conclusion, receiving $294.12 for every share they held."

Thus the second corporation was in the personnel of its membership still the same and the continuance of its activity unbroken. In September of the same year Lyman J. Gage was promoted to be vice-president, and Henry R. Symonds became cashier.

INCREASE OF CAPITAL AND CHANGES IN OFFICERS

On November 7th, 1881, the capital stock of the bank was increased to the sum of $2,000,000, the additional amount being quickly subscribed. Again, on May 6th, 1882, within a week after the events spoken of in the previous paragraph, the capital stock of the bank was increased to $3,000,000. In December, 1884, the deposits of the bank had reached the large total of $15,727,000.

On June 30th, 1891, Mr. Nickerson resigned as president after twenty-four years of continuous service. Mr. Gage was chosen President at the same time, while Henry R. Symonds became first vice-president. At the beginning of 1892 Mr. James B. Forgan became a member of the board of directors and second vice-president. Soon after Mr. Symonds died and Mr. Forgan was promoted to be first vice-president.

At the end of the year 1894 the bank's statement showed the amount of the deposits to be $29,352,551, while the capital of $3,000,000, and the surplus of $3,000,000, to which might be added $316,135 of undivided profits, represented the liabilities of the bank, offset by $35,668,686 of assets. In July, 1895, the directors decided that all such assets as had become impaired during the long period of depression then passing over the business community should be "weeded out," and charged to profit and loss. It was considered that a lump sum of one million dollars would cover the depreciation of such assets, and accordingly the directors passed a resolution to that effect. The surplus account, which in the statement of the bank made in the previous December stood at $3,000,000 was thus reduced to $2,000,000.

"This action," says Morris, "placed the institution on a thoroughly sound

Railway Exchange Building

Commercial National Bank

Masonic Temple

Chicago Stock Exchange Building

Monadnock Block

A GROUP OF CHICAGO SKYSCRAPERS

basis. There was no undue inflation. Every figure was warranted by the facts, and the road was again clear for further unimpeded advancement."

After the inauguration of Mr. McKinley as president of the United States in 1897, Mr. Gage was invited to become a member of his cabinet as Secretary of the Treasury, and having accepted this offer he resigned his position as president of the First National Bank. The date of his resignation was February 15th, 1897. It was expected that Mr. Forgan, the first vice-president, would be placed at the head of the institution upon Mr. Gage's retirement, but the state of his health obliged him to visit Europe for needed rest and relaxation. Meantime Mr. Nickerson was elected to the presidency of the bank, a position he had retired from nearly six years before, on the understanding that Mr. Forgan should be elected to the position as soon as he was able to resume his duties at the bank.

Mr. Forgan's health having been restored, he was elected to the presidency of the bank on January 9th, 1900, and he has continued in that position up to the present time. During the spring following Mr. Forgan's election the Union National Bank, an institution which had been in existence since 1864, was amalgamated with the First National Bank under the name of the latter, and the capital of the bank was then increased to $5,000,000. David R. Forgan, a brother of the president, who had previously been president of the Union National Bank, was made vice-president. The bank's statement, made on June 29th, 1900, gave the amount of the deposits as $50,046,543.

On May 31st, 1902, the Metropolitan National Bank was absorbed by the First National Bank, after which the capital stock of the latter was increased to $8,000,000, with a surplus fund of $6,000,000. The deposits were $92,965,755.

THE PRESENT FIRST NATIONAL BANK BUILDING

After an occupancy of the building at Dearborn and Monroe streets for a period of about twenty years, it became necessary to provide larger accommodations for the greatly increased business of the bank. It was decided therefore to acquire additional ground to the west of the old building and erect an office building on the old site thus enlarged, in which ample room could be provided for the uses of the bank. Through the agency of a subsidiary corporation, known as the National Safe Deposit Company, the sites of the old Montauk Block, one of Chicago's earliest skyscrapers, and a warehouse occupied by Bradner Smith & Co., were acquired, and it thus became possible to provide the space necessary for the new and larger building that was planned. This involved the razing of the Montauk Block, a substantial structure of ten stories, and the warehouse mentioned. The new building was then planned to have a frontage of two hundred and thirty-one feet on Monroe and one hundred and ninety-two feet on Dearborn streets.

The new First National Bank Building was erected in two sections, the first one on the western part of the proposed site which on its completion in December, 1903, was occupied by the bank. The old building was then demolished and the second section was carried up to the same height as the western part and in the same design. This section was completed and occupied in May of the following year, and thus furnished the bank with the enlarged accommodations required.

The cost of the building was in the neighborhood of five millions of dollars. The architects were Messrs. D. H. Burnham & Co. The exterior walls of the building are of granite and it is carried up to a height of sixteen stories. "The design," according to a description furnished by the architects, "is severely simple, in keeping with the natural quality of granite, which material is used for the entire fronts of the building. Good and impressive proportions are relied upon for general effect, and merely ornamental treatment is everywhere avoided. The purpose is to suggest the strength and dignity of a great financial institution." It is one of the best buildings of its kind in Chicago.

On April 4th, 1910, the capital stock of the bank was increased to $10,000,000. The organization of the bank was also planned so that with the president at the head there should be eight vice-presidents, a cashier and ten assistant cashiers, the vice-presidents and cashiers each managing a separate division of the bank.

According to the statement of condition made by the bank on September 1st, 1911, the capital stock was $10,000,000; the surplus fund was $10,000,000; with deposits of $116,020,654. The First Trust & Savings Bank, occupying quarters in the First National Bank building, the stock of which is owned by the stockholders of the First National Bank, has a capital of $2,500,000, with surplus and undivided profits of $2,964,148, and deposits amounting to $50,704,607.

The story of two banks, one a national and the other a state bank, is given in some detail as above. A complete history of all the banks now doing business in Chicago would be of great interest, but such an account would require a volume in order to be adequate in its treatment of the subject. The histories of the two banks referred to are typical of the progress and development of banking in Chicago.

It is interesting to observe in this connection that the total deposits of all the banks in Chicago in 1869 amounted to $6,900,000. In 1911 the deposits amounted to $962,000,000. Such is the record for the forty-two years which have intervened between these dates.

FINANCIAL STRENGTH OF CHICAGO BANKS

As showing the financial strength of all the Chicago banks at the beginning of September, 1911, the following is compiled from the official statements then made:

Thirty National banks: Capital	$ 44,350,000
Same: Surplus and Undivided Profits	30,812,300
Forty-nine State Banks, Capital	38,100,000
Same: Surplus and Undivided Profits	35,685,098
Total Capital and Surplus	$148,947,398

The amounts due depositors by all the banks and to the holders of national bank notes by the National banks are shown in the following items:

National Banks	$474,825,605
State Banks	487,664,206
Total	$962,489,811

All the above items are shown in bank statements as liabilities, the total of which is offset in the lists of assets amounting to practically the same sum, though in order to simplify the showing some comparatively small amounts have been disregarded.

MEDICAL HISTORY

In a pamphlet of the Fergus Historical Series, printed in 1879, Dr. James N. Hyde gives a history of the medical profession in Chicago from the beginning of its settlement. It is there shown that many of the early practitioners were engaged in various lines of business or employments, as well as in the practice of their profession. Among those mentioned were Dr. John T. Temple and Dr. William B. Egan, both of whom arrived on the scene in the early thirties. Dr. Daniel Brainard's name is frequently met with in the early annals of the medical profession. He came to Chicago in 1835, and soon acquired a reputation as a skilful surgeon. Four years later he visited Paris where he remained two years perfecting himself in the details of his profession. Soon after his return he completed his plans for the establishment of Rush Medical College, a well known institution at the present day.

Rush Medical College was incorporated by the state legislature March 2d, 1837, the name adopted being in honor of Dr. Benjamin Rush, an eminent physician of Philadelphia who was one of the signers of the Declaration of Independence. It may be remarked in this place that Rush Street was also named in honor of Dr. Rush. In 1843, the organization of the institution was effected and lectures were begun in December of that year. In the following year a building was erected by John M. Van Osdel, architect, at the southeast corner of Dearborn and Indiana streets; and upon its dedication the *Weekly Democrat* stated that "Dr. Brainard, indeed, may almost be said to be the founder of this institution, and he and our citizens generally may well be proud of the intelligence and enterprise, which in so short a time have erected a beautiful and costly edifice dedicated to science, in which are already gathered about forty students from our own and neighboring states." Dr. Brainard died of cholera in the old Sherman House, on the 10th day of October, 1866, in the fifty-fifth year of his age.

Many prominent physicians of Chicago have been connected with Rush Medical College as lecturers at one time and another, and among the earlier ones may be mentioned Dr. James V. Z. Blaney, Dr. Austin Flint, Dr. G. N. Fitch, Dr. John McLean, Dr. W. B. Herrick, Dr. J. Adams Allen, Dr. Joseph W. Freer, Dr. Moses Gunn, Dr. Edwin Powell, Dr. J. P. Ross, and Dr. Edwin L. Holmes.

THE COUNTY HOSPITAL

The establishment of the present great Cook County Hospital "must be ascribed," says a writer in Andreas' History, "to the persistent energy and unflagging labors of Joseph P. Ross and George K. Amerman." In 1858 Drs. Ross and Amerman leased a building that has been used by the city authorities for hospital purposes, situated at Eighteenth and Arnold streets, with the intention of conducting "a public hospital for the sick," at the same time securing a contract "for the care of the sick poor of the county."

This was conducted until 1863, when the military authorities assumed the charge of the hospital for the use of the soldiers. After the war the same men who had continued with the hospital through the period intervening since its beginning, organized the Cook County Hospital "for the care of the indigent poor," and for the clinical instruction of students. This was in 1866. "To these two gentlemen," says Dr. J. N. Hyde, in his sketch of the early history of the medical profession in Chicago, "is largely due the honor of conducting to a successful issue the plans for the development of this great municipal charity."

A tract of land was purchased in 1871 in the block bounded by Wood, Harrison, Lincoln and Polk streets, for $145,000, and in the next two years extensive hospital buildings were erected to accommodate some five hundred patients, at a cost of $436,000. In 1882-4 other buildings were constructed at an additional cost of $282,000.

The entire conduct of the Cook County Hospital is under the control of the Cook County Board of Commissioners. In the year 1909 the total cost of maintenance amounted to $508,105. During that year there were 30,504 patients admitted to the hospital with a daily average of 1,119 patients constantly under treatment. The entire block in which the hospital is situated has now become the property of the county.

The great increase in recent years in the use made of the hospital obliged the Board of Commissioners to consider plans for new buildings. In September, 1910, a committee of the board investigated the existing conditions, and reported that "owing to the great age of the buildings and the character of their construction," they no longer met modern conditions as hospital buildings: that they were unsanitary, not fireproof, and their arrangement faulty. It was therefore recommended by the committee that new buildings be immediately constructed in place of the old ones: and that "a bond issue of $3,000,000 be submitted to the voters for the construction of these five buildings."

Accordingly the bonds were voted at the election in the following November, and the new buildings are now in course of construction.

NATHAN SMITH DAVIS

Those individuals whose names are so frequently met with in the annals of a locality as to become familiar as household words, are exemplified in the life and work of Dr. Nathan Smith Davis. He was not only a skilful and accomplished practitioner in his profession, he was also a man whose character and influence were felt for good in the social, political and business life of the community.

Dr. Davis was born in New York state, January 9th, 1817. He received his education in Cazenovia Seminary and soon after graduated in medicine. In 1849, he came to Chicago and was appointed on the staff of Rush Medical College. In addition to the practice of medicine he also wrote extensively for the medical press. He was one of the originators of the American Medical Association, and was twice chosen as its president. He was also elected president of the Ninth International Medical Congress, which held its sessions in 1887 at Washington, D. C.

MARINE HOSPITAL

COOK COUNTY HOSPITAL

MICHAEL REESE HOSPITAL

ST. LUKE'S HOSPITAL

MERCY HOSPITAL

ST. JOSEPH'S HOSPITAL

A GROUP OF CHICAGO HOSPITALS

No patient was ever turned away by Dr. Davis for want of means to pay a fee. In fact he gave medical advice on numerous occasions for which he would make no charge whatever. In 1902, when he was eighty-four years old a banquet was given in his honor by the members of the Chicago Medical Society, some three hundred guests being present. On that occasion a silver loving cup was presented to him on which was engraved his own likeness. In the course of his remarks made in acknowledgment of the gift, he said: "I am a doctor because I wanted to help the sick, and that has been my aim through life. . . . This is probably the last time I shall ever address you. I realize that I am near my end, but I have endeavored to live so that any day, any moment, I could render my accounting to God."

When the Northwestern University was established at Evanston in 1854, Dr. Davis was one of the contributors, his name appearing on the first subscription list. While he was not one of the incorporators of that institution, he was identified with it from an early period. In conversation with the writer in 1900, he explained his first appearance on the Board of Trustees, as follows: "There was a man by the name of Eri Reynolds who was one of those named in the act of incorporation, but on account of poor health he resigned when the first meeting of the Board of Trustees was held. The Board then elected me to fill the vacancy."

The principal street in Evanston was named in honor of Dr. Davis, Davis Street, the name having been chosen when the Board of Trustees of the Northwestern University first platted the village in 1854, and before the railroad was built. Davis Street station in Evanston, as it is well known, is now the principal station of the five stations on the Chicago & North-Western Railway in that city. Dr. Davis was a resident of Evanston for many years.

Dr. Davis died June 16th, 1904, in the 88th year of his age. "No physician of his time," said the Journal of the American Medical Association, "had a greater influence on our profession, none was better known, none better loved, than Dr. Nathan Smith Davis. He was a man of action, and that action was not limited to local but extended to national affairs, at least as far as concerned medical matters. He is called the Father of the American Medical Association, not only because he individually was responsible for calling the national convention which resulted in its organization, but because he was the one active figure present at every meeting for the first half century of its existence, and because during that time he did as much in directing its activities as any other one man."

CHICAGO SKYSCRAPERS

Chicago was the first city to venture upon the construction of those lofty buildings known as "skyscrapers." In the later years New York surpassed this city in the number and height of such structures, but among those of Chicago there still remain the earliest forms of the skyscrapers still in use and answering the purposes for which they were built in an efficient and satisfactory manner.

It was the builders of Chicago who first perceived that the efficiency attained in the improvements made in building elevators permitted of carrying up to much greater heights the buildings in cities where formerly they seldom exceeded six or eight stories above the surface. The economic advantages of these loftier struc-

tures were quickly recognized, giving a vast increase of office and storage space without occupying additional space for site. These new forms of construction attracted the attention of the world, and in consequence of the great number of such buildings constructed here Chicago became known as the "city of skyscrapers;" and because of the cliff-like appearance of these buildings lining long stretches of city blocks the people of Chicago were often humorously referred to as "cliff dwellers." The aptness of this epithet gave occasion to a well-known writer of fiction to name a book "The Cliff Dwellers," in which are depicted scenes of Chicago life; and the name has been adopted by a club having its quarters high up in a building on Michigan avenue overlooking Grant Park and Lake Michigan.

Not only buildings devoted to business purposes were raised to great heights but apartment houses and hotels adopted the same general style of construction. As a consequence of the erection of skyscrapers the character of materials used was greatly improved, for it was highly important that nothing but fireproof materials should enter into the construction of such buildings, the upper portions of which were so far beyond the reach of the fire apparatus of the present day. Thus much better and more durable materials came to be in demand, and a high order of engineering talent became requisite in addition to the usual services of the architect.

THE MAYORS OF CHICAGO

A place must be found in this work for a list of the mayors of Chicago, and in order to include them all to date it will be appropriate to place such a list among the later chapters. To avoid a mere catalogue of names and dates a few words of comment are appended to the mention of each one of them, after the manner of what the French call a "catalogue raisonné."

Chicago was incorporated March 4th, 1837, by an act of the legislature. The first mayor was William B. Ogden who was chosen at an election held under the new charter on May 2d, 1837. The population of the city at this time consisted of 4,179 souls. The first problem confronting the authorities of the young city was the improvement of the streets which were in a horrible condition. There was also great need of bridges and ferries to connect the three parts of the city with each other. At that time there was only one drawbridge across the river which was at Dearborn street, built in 1834, a footbridge over the North Branch, and a floating bridge over the South Branch at Randolph street. Ogden proved to be an efficient chief magistrate as might have been expected, and the affairs of the city were greatly improved during his administration in spite of the disastrous panic which swept the country in that year. It will be observed in the dates which follow that the term of the mayors was for one year for each time a choice was made until 1863, at which time the term was changed to two years. In 1907, the mayor's term was changed to four years.

On March 6th, 1838, Buckner S. Morris was elected mayor. These were difficult times owing to the depressed state of business. Mayor Morris, however, made a good record and left the office with the respect of the people, afterwards becoming a judge of the Circuit Court.

Benjamin W. Raymond was elected mayor March 5th, 1839. This year marked the beginning of grain shipments to the East. Wright, in his history of Chicago,

says: "The first grain received at Buffalo from Chicago was a small cargo of 1678 bushels of wheat, shipped by Newberry & Dole, October 8th, 1839, on the brig 'Osceola.'"

MAYORS FROM 1840 TO 1850, INCLUSIVE

Alexander Loyd was chosen mayor at the election of March 3d, 1840. Loyd was a building contractor and during the time he was mayor he built the First Unitarian Church on Washington street, between Clark and Dearborn. The United States census was taken this year and showed that Chicago had a population of 4,470 souls.

Francis C. Sherman was elected mayor March 2d, 1841. The first permanent establishment of free schools was made in this year. We shall find that Sherman, after an interval of twenty-one years, was again called to the mayor's chair.

On March 8th, 1842, Benjamin W. Raymond was elected mayor for the second time. In the spring of this year the first pumping station for the supply of water from the lake was erected by a private company.

On March 7th, 1843, Augustus Garrett was elected mayor. The first directory of the city was printed in this year by Ellis & Fergus.

Alson S. Sherman was elected mayor April 2d, 1844. On August 2d of that year General Winfield Scott and suite arrived at Chicago on a visit. The first public schoolhouse was erected on the north side of Madison street near Dearborn, in the course of this year. It was nicknamed "Miltimore's Folly."

Augustus Garrett was elected mayor for the second time on March 4th, 1845. President Polk appointed Hart L. Stewart postmaster in this year.

John P. Chapin was elected mayor on March 3d, 1846. Chapin was a commission merchant. In the fall of this year Augustus C. French was elected governor of Illinois.

James Curtiss was elected mayor March 2d, 1847. He was a practicing attorney. It was during this year that the great River and Harbor convention was held.

James H. Woodworth was elected mayor March 7th, 1848. Woodworth was a member of Congress a few years later. This year, on April 10th, the Illinois and Michigan Canal was opened for navigation.

James H. Woodworth was re-elected for mayor on March 6th, 1849. This year occurred the great flood in the Chicago river carrying away all the bridges.

James Curtiss was elected mayor for the second time on March 5th, 1850. The United States census for this year showed a population in Chicago of 28,269.

MAYORS FROM 1851 TO 1865, INCLUSIVE

Walter S. Gurnee was elected mayor on March 4th, 1851. In this year the second charter of Chicago, known as "The Consolidating Act of 1851," went into effect.

Walter S. Gurnee was elected to succeed himself as mayor on March 2d, 1852. City waterworks operated for the first time in this year. First railroads enter the city from the East.

Charles M. Gray was elected mayor March 8th, 1853. The city limits were extended this year, making the total area of the city eighteen square miles.

Isaac L. Milliken was elected mayor March 7th, 1854. This was known as the "great cholera year," there having been 1424 deaths from cholera.

Levi D. Boone was elected mayor March 6th, 1855. This year the so-called "lager beer riot" took place.

Thomas Dyer was elected mayor March 4th, 1856. Fort Dearborn was dismantled and most of the buildings removed during this year.

John Wentworth was elected mayor March 3d, 1857. A disastrous fire occurred on South Water street in October of this year resulting in the loss of twenty-three lives. The "Madeira Pet," an English vessel, arrived from Liverpool during the summer.

John C. Haines was elected mayor March 2d, 1858. The paid fire department was organized in this year.

John C. Haines was re-elected mayor March 8th, 1859. The first line of street cars began running in this year.

John Wentworth was elected mayor for the second time on March 6th, 1860. The loss of the steamer "Lady Elgin" occurred a few hours after leaving Chicago on the 8th of September in this year. The population of Chicago as shown by the United States census of 1860 was given as 109,266.

Julian S. Rumsey was elected mayor April 16th, 1861. In this year occurred the outbreak of the Civil war.

Francis C. Sherman was elected mayor for the second time April 15th, 1862. The brig "Sleipner" from Bergen, Norway, arrived at the port of Chicago.

MAYORS ELECTED FOR TERMS OF TWO YEARS EACH

Francis C. Sherman was elected mayor for the third time on April 21st, 1863. In this year the third charter of Chicago went into effect, providing for a two year term for the office of mayor. Mayor Sherman was the first mayor to be chosen for a two year term.

John B. Rice was elected mayor April 18th, 1865. The boundaries of the city were extended so that the area comprised within the city limits was now a little over twenty-four square miles.

John B. Rice was re-elected mayor April 16th, 1867. The first water tunnel under the lake was completed this year.

Roswell B. Mason was elected mayor November 2d, 1869. The tunnel under the river at Washington street was completed in the same year. The United States census for 1870 gave Chicago a population of 306,605. It was near the close of Mayor Mason's term, namely October 9th, 1871, that the great Chicago fire occurred.

Joseph Medill was elected mayor November 7th, 1871. The Chicago Public Library was founded during the term of Mayor Medill, namely in 1872.

Harvey D. Colvin was elected mayor November 4th, 1873, and held office eight months over his term by reason of legal technicalities elsewhere referred to. During his term the great fire of July 14th, 1874, occurred. Chicago city government was organized under the general law on April 23d, 1875. The time for holding the city elections was changed from the fall to the spring as formerly was the case.

DR. REUBEN LUDLAM

Monroe Heath was chosen at a special election on July 12th, 1876. At the fall elections Hon. Shelby M. Cullom was elected governor of the state of Illinois.

Monroe Heath was re-elected April 3d, 1877. It was during the following summer that the great railroad riots occurred. The erection of a new City Hall was commenced in the same year.

Carter H. Harrison was elected mayor April 8th, 1879. The United States census of 1880 showed the population of Chicago to be 503,298.

Carter H. Harrison was re-elected successively at the elections of April 5th, 1881, April 3d, 1883, and April 7th, 1885. It was during the early part of the summer of 1886 that the Haymarket riots occurred.

John A. Roche was elected mayor April 5th, 1887. On May 26th, of the same year the legislature passed a resolution to report on "the subject of the drainage of Chicago and its suburbs."

De Witt C. Cregier was elected mayor April 2d, 1889. The act creating the "Chicago Sanitary District" went into effect July 1st, 1889. The annexation of Hyde Park and other suburbs was the leading civic event of the year 1889, thus adding one hundred and twenty-six square miles to the area of Chicago. The United States census for the year 1890 gave Chicago a population of 1,099,850.

Hempstead Washburne was elected mayor April 7th, 1891. It was during the term of Mayor Washburne that the World's Fair was dedicated, namely, on October 21st, 1892, though the fair was not opened until the first of May in the following year.

Carter H. Harrison was elected for the fifth time on April 4th, 1893. The World's Fair was opened May 1st of the same year. Mayor Harrison died at the hands of an assassin on the 28th of October in the same year.

John P. Hopkins was chosen mayor at a special election held December 19th, 1893. It was during Mayor Hopkins' term, in July, 1894, that the Pullman strike and riots occurred.

George B. Swift was elected mayor April 2d, 1895. The old Federal building was razed and the material removed during the year 1896.

Carter H. Harrison, Jr., was elected mayor April 6th, 1897. He is the son and namesake of the former Mayor Harrison. The National Peace Jubilee, in commemoration of the return of peace between the United States and Spain, was held in Chicago, October 18th, 1898.

Carter H. Harrison, Jr., was re-elected mayor three times following the previous election, in all, four times in succession, a record precisely similar to that made by his father. The dates of the three elections mentioned are as follows: April 4th, 1899, April 2d, 1901, and April 7th, 1903. It was during this period that the great Sanitary Canal was opened, namely, on January 2d, 1900. The United States census for 1900 gave Chicago a population of 1,698,575. On December 31st, 1903, occurred the disastrous Iroquois theatre fire, by which five hundred and seventy-one persons lost their lives.

Edward F. Dunne was elected mayor April 4th, 1905. The Municipal Courts were established in this year.

MAYORS ELECTED FOR TERMS OF FOUR YEARS EACH

Fred A. Busse was elected mayor April 2d, 1907. The administration of Mayor Busse began simultaneously with the popular approval at the polls of the street

car ordinances of 1907. The four year term for mayor began in this year. The United States census for 1910 showed that the population of Chicago was 2,185,283.

Carter H. Harrison was elected mayor April 4th, 1911, thus entering upon his fifth term of mayor and in this respect equalling the remarkable record made by his father.

HYDE PARK

The following historical sketch of Hyde Park was prepared by John Dickinson Sherman, associate editor of the *Inter Ocean* and a native born citizen of Chicago, at the request of the author of this work.

The act of incorporation, approved February 20, 1861, separated the Town of Hyde Park from the Town of Lake and gave Hyde Park 87th street for its southern boundary. By subsequent acts and by annexation of the Town of Calumet the boundaries had become by 1874 roughly as follows: 39th and 138th streets on the north and south; Lake Michigan and the Indiana State line on the east and State street on the west. Hyde Park became a village August 13, 1872. It was then said to be the largest village in extent of territory in the world. When it was annexed to Chicago in 1889 it was also said to be the largest in population, having more than 100,000 inhabitants.

Hyde Park's first town meeting was held April 2, 1861, at the Illinois Central railroad station at 53d street. Erastus S. Williams was elected chairman, Warren S. Bogue, moderator and Abraham Bockee clerk. The following town officers were elected: Supervisor, Paul Cornell; town clerk, Hassan A. Hopkins; collector, George W. Waite; commissioners of highways, Prentice Law, John Middleton, Frederick Bosworth; constables, Alexander Brown, Liborius Goldhart; justices of the peace, Chauncey Stickey, Samuel Brookes; poundmaster, Frederick Rohn. The total vote cast was seventy-one.

Paul Cornell, the first supervisor, well deserved the honor, since he will go down to history as the "Father of Hyde Park." Born in New York state, he became a practicing lawyer in Chicago in 1847. In 1852 he made up his mind that Hyde Park property was valuable for suburban residence purposes and had surveys made in the vicinity of 53d street and the lake shore. His first purchase was three hundred acres, of which he conveyed sixty to the Illinois Central Railroad, part of the consideration being that the road should establish a suburban service of three trains a day each way as far as 56th street. The first train was run June 1, 1856, and Mr. Cornell, Penoyer L. Sherman and other property owners and prospective residents had to furnish a guarantee to the railroad company—incidentally, they had also to build the little stations at Hyde Park, Kenwood and other stopping places. Now the suburban service extends to South Chicago, Homewood and Blue Island and is said to carry more commuters than any suburban service in the world.

PAUL CORNELL THE PIONEER OF HYDE PARK

In 1856 Mr. Cornell subdivided and platted two hundred and fifty acres between 51st and 53d streets, began the building of the first Hyde Park House on the lake shore at the foot of 53d street (burned in 1877), married Miss Helen M.

DREXEL BOULEVARD

Gray of Bowdoinham, Maine, and built the family homestead at Hyde Park boulevard (51st street) and Jefferson avenue, where his widow still lives. In 1858 he built a church on 53d street between Lake avenue and the Illinois Central tracks. This historic building was originally built for the use of all denominations. In April, 1860, the First Presbyterian church of Hyde Park was organized and Mr. Cornell deeded to it the building and three lots. Later the Village of Hyde Park bought the building and moved it around the corner to Lake avenue, where it served as the village hall until after annexation to Chicago in 1889—and until replaced by the present Hyde Park police station.

Mr. Cornell is also justly entitled to be called the "Father of the South Park System," since it was largely due to his foresight, initiative and energy that the preliminary legal steps were taken and the land purchased in 1869 and 1870. He was a member of the first South Park board and served for many terms. He died in 1903.

SUBURBAN SERVICE OF THE ILLINOIS CENTRAL

The establishment of the suburban service of the Illinois Central railroad was really the beginning of the settlement of Hyde Park. In the next few years the little settlements at the various stopping places began to take shape. Nevertheless, when the town meeting of 1861 was held there were probably less than three hundred and fifty people in the whole town.

The population of Chicago in 1860 was 109,206, of which about 40,000 belonged to the South Side. The outer fringe of the residence and business section of the South Side was at 16th street and the city limits were at 39th street, where the Cottage Grove avenue horse-car line came to an end and there was a little settlement called both Oakland and Cleaverville. A steam dummy ran south on Cottage Grove avenue and east on 55th street to Lake avenue. There was a city reform school on 43d street near the lake. There was a little settlement and a toll bridge at the mouth of the Calumet river. The Illinois Central and the Lake Shore and Michigan Southern roads were in operation.

Otherwise Hyde Park was largely a geographical location and a name. It had no water, no gas, no pavements and only a few of its roads were even laid out. Lake avenue is the old military and stage road around the head of the lake to Detroit, via Michigan City. Cottage Grove avenue and Vincennes avenue were made by the farmers who hauled grain to Chicago and drove cattle to the stock yards, which were then at 33d street and the lake shore. Up to the incorporation of Hyde Park in 1861 and the annexation by vote in 1862 of the town of Calumet all the people south of Chicago had but one polling place—Englewood, in the town of Lake.

Here is the genesis of some of the principal settlements in Hyde Park:

Oakland, originally Cleaverville, had its beginning in the activities of Charles Cleaver, an Englishman who came to Chicago in 1833. Early in the Fifties he established a soap factory and store at the foot of 38th street and built a number of houses for his employes and a meeting house, the first south of Van Buren street. He named his home Oakwood Hall, whence Oakwood boulevard. He paid the Illinois Central to run trains to his settlement, and in 1857 platted his property as Cleaverville.

Forty-third street was originally called "Reform School." It had no leading citizen in the early days and "just growed," probably because of the reform school and the early establishment of a cross-town horse-car line and the Illinois Central branch to the Union Stock Yards.

Kenwood (47th street) got its name through Dr. Jonathan A. Kennicott, who was its first bona fide settler and named his homestead Kenwood, after his ancestral home in Scotland. When the Illinois Central suburban trains began to stop in 1859 at 47th street (then Mason street) the station was called Kenwood. The earliest settlers after Dr. Kennicott were P. L. Sherman, William H. Waters and John Remmer. The Episcopal Parish of St. Paul's was organized June 26, 1859. The first baptism in the new parish was that of John Dickinson Sherman, January 1, 1860, the Rev. Clinton Locke of Grace church officiating. Kenwood was for almost a generation a strictly residence settlement and successfully resisted the invasion of business.

At Hyde Park (53d street) the first seven settlers were Paul Cornell, John A. Jameson, Warren S. Bogue, Chauncey Stickney, Dr. A. B. Newkirk, Charles Spring, Sr., and Charles Spring, Jr.

South Park (57th street) was originally called "The Woodpile," for the reason that the Illinois Central surburban engines were supplied with oak wood there before starting back on the return trip. Among the earliest settlers were Charles A. Norton and James P. Root. Mr. Root still lives on the old homestead on Washington avenue, near 55th street.

Woodlawn (63d street) came into existence when the Illinois Central extended its surburban service and built a "Y" to Oakwoods cemetery.

Grand Crossing was originally called Cornell and was subdivided and laid out by Paul Cornell, who built a hotel, established the Cornell watch factory, and was the leading spirit in establishing a manufacturing settlement. It dates from the early Seventies.

BEGINNINGS AND GROWTH OF SOUTH CHICAGO

South Chicago came near being Chicago itself—that is to say it was doubtful for some time whether the government would establish a harbor at the Chicago river or the Calumet river. A government survey was ordered in 1833 to determine the better location. The survey was made by Lieutenant Jefferson Davis, then of the United States Engineer Corps, afterwards president of the Southern Confederacy. He reported in favor of the Calumet and the establishment of the harbor there, arguing that the Calumet was the better river and that Lake Calumet would afford an advantageous refuge for warships to be used on the Great Lakes against Canada. Also it was thought that the outlet of the Illinois and Michigan canal would naturally be at the Calumet.

In consequence, Lewis Benton, George W. Dole, Elija K. Hubbard, John Wentworth and other prominent Chicagoans bought large tracts of land, laid out Calumet, built a hotel, established stores and succeeded in getting the government to remove the last of the Potawotomi Indians to a reservation west of the Mississippi. But political influences—the true inwardness of which have never been revealed—made the government select the Chicago river for a harbor and Calumet settled back into a "Rip Van Winkle sleep." It got nothing from the government

until 1853, when a lighthouse was established. Even that was discontinued in 1855, not to be relighted until 1873.

South Chicago began to awake from its long sleep in 1869 when James H. Bowen, Eliot Anthony, Elam G. Clark, James H. Woodworth, O. S. Hough and other prominent Chicagoans organized the Calumet and Chicago Canal and Dock company, purchased the holdings originally acquired more than a generation before by Benton and his associates, and began the work of making a harbor at the mouth of the Calumet river. The next year General John A. Logan succeeded in getting Congress to appropriate $50,000 for a "harbor of refuge" at the Calumet. Work was pushed and South Chicago was made a port of entry in 1873.

James H. Bowen, first president of the dock company is the "Father of South Chicago." He and his company were the formative powers of the whole Calumet region. The first big industrial enterprise to be secured was the rolling mills of the Joseph H. Brown Iron & Steel company at Cummings, for which the corner stone was laid in 1875 with a public celebration. The big rolling mills of the Illinois Steel company at the mouth of the Calumet were begun in 1880. Thereafter the growth of South Chicago as a manufacturing center was by leaps and bounds sufficient to justify even the enthusiasm and confidence of Colonel Bowen, who was killed in an accident in 1881, just as he was about to see his fondest dreams realized. Hegewisch, Hammond, and other manufacturing centers followed along in rapid succession.

South Chicago and the Calumet region form an interesting illustration of the fact that history repeats itself. The Calumet is now Chicago's second harbor. The movement to make an inner harbor of Lake Calumet is practically Jeff Davis' idea over again. The new branch of the Chicago drainage canal from the Calumet river to the Sag gives South Chicago the canal it didn't get when the Illinois and Michigan canal did not make its terminus there.

OTHER TOWNS IN THE NEIGHBORHOOD

Kensington and its surrounding settlements had its origin in the fact the Illinois Central and the Michigan Central come together at 115th street, with the accompaniment of railroad yards, etc. It is therefore largely a railroad town and dates back to the establishment of a station in 1852.

Roseland, lying to the west of Kensington, was originally Holland Settlement. And well it deserved the name. It was settled in 1848 by Hollanders who came direct from the district between Amsterdam and Rotterdam. To this day there are plenty of wooden shoes to be seen, as well as an occasional squat house with small window panes and pollards.

Pullman dates from 1880, when work was begun on what was intended to be the model industrial community of the world. It is, as everyone knows, the main works of Pullman's Palace Car company, of which George M. Pullman was then president. In those days it attracted world-wide attention as the first industrial experiment of its kind, and the opening of the works and public buildings was made an event long to be remembered.

When these Hyde Park pioneers established their homesteads they found what was practically a virgin wilderness, notwithstanding the fact that they went daily

to business in a city of 100,000 inhabitants. And it was a wilderness of many and various beauties. The north end of Hyde Park, in general high and dry, was made up of alternate ridges and swales. The swales were natural gardens of astonishing fertility. The ridges were heavily timbered with oak, many of the trees being veritable forest monarchs more than three feet through. There were wild flowers in endless variety. The quail nested everywhere. The groves were full of the now extinct wild pigeons, stragglers from the untold millions that passed over every year to their nesting places in Wisconsin and Michigan.

These North End pioneers laid out liberal homesteads and many of them were show places for years. For example, Dr. Kennicott's acres of flower gardens and vineyards at Madison avenue and 48th street were famous. The Sherman place at 47th street and Lake avenue had seven acres of garden and natural wildwood and a big red barn that was a Saturday rendezvous for boys who came on their ponies from Oakland to Woodlawn. Egandale, the large country place of Dr. W. B. Egan, comprised hundreds of acres to the south of 47th street and east of Cottage Grove avenue and was open to the public.

The South End of Hyde Park ran into the famous Calumet marsh which was a sportsman's paradise, enjoyed to the full by sport-loving Chicagoans. The lakes and rivers were full of bass, pickerel and wall-eyed pike. Every variety of waterfowl was to be found in season, including the lordly canvasback, the grey goose and the snow-white swan. The swamp lands were full of snipe, woodcock and plover. A bear, a deer, and wolves occasionally rewarded the big game hunter.

So it was that the North End of Hyde Park naturally developed into a suburban residence section in the early years of the village. And so it was that the South End lay idle and undeveloped until the Calumet harbor was opened and the Calumet region became a network of railroad tracks. Then Chicagoans and the rest of the world woke to the fact that here lake vessel and railroad train met and afforded the site of sites for big manufacturing establishments.

Hyde Park lost its identity in 1889 by annexation to Chicago. The village voted against annexation in 1887 because Chicago would not agree to guarantee the permanence of its several prohibition districts. This guarantee was secured and at the next election both Chicago and Hyde Park voted favorably on the proposition.

Thus in half a century Chicago has pushed its South Side limits from 39th street to 138th street, established a second harbor, and built a solid city from 16th street to far over the Indiana state line.

CHAPTER LIX

INDUSTRIAL DEVELOPMENT—STREET RAILWAYS, ETC.

ADVANTAGES POSSESSED BY CHICAGO—EARLY PROGRESS OF MANUFACTURING—LARGE TRIBUTARY TERRITORY—THE "INDUSTRIAL ZONE"—STEEL INDUSTRIES—IMMENSE RECEIPTS OF IRON ORE—ABUNDANCE OF COAL—LABOR CONDITIONS—LIVING CONDITIONS FOR WORKMEN—STATISTICS OF MANUFACTURING—EARLY METHODS OF STREET TRANSPORTATION—FIRST LINE OF STREET CARS—SINGLE TRACK LINES—THREE COMPANIES BEGIN OPERATIONS—DISAPPEARANCE OF SMALL CHANGE IN 1861—DIFFICULTIES IN COLLECTING FARES—CHANGES IN METHODS OF PROPULSION—THE "TRACTION TANGLE"—STRUGGLE BETWEEN THE PEOPLE AND THE COMPANIES—DETERIORATION OF FACILITIES—FRANCHISE OF 1907—AGREEMENT ENTERED INTO—REVENUE DERIVED BY THE CITY—PUBLIC VIGILANCE—THE "SOUTH SIDE L" RAILROAD—ITS GREAT SERVICE IN THE WORLD'S FAIR—THE "METROPOLITAN L"—THE "LAKE STREET L"—THE "NORTHWESTERN L"—THE UNION LOOP—NAMES OF STREETS—OBSOLETE NAMES—ORIGIN OF STREET NAMES—SETTLEMENTS—POST OFFICE LOCATIONS—POSTMASTERS.

INDUSTRIAL DEVELOPMENT

IN INTRODUCING the subject of the position occupied by the city of Chicago as a manufacturing and trading center the writer of a book entitled, "Chicago, Its Natural Advantages as an Industrial and Commercial Center and Market," issued in 1910, by the Chicago Commercial Association, Mr. George E. Plumbe, the author, says: "There is nothing anomalous in the fact that in every civilized country on the globe, Chicago, as a city, is regarded as the marvel of the century. That a municipality not yet seventy-five years of age should have outstripped in growth of population, in the massiveness and solidity of its commercial buildings, in the extent and variety of its industrial development, in the number and stability of its financial institutions, in the magnitude and high standing of its schools, colleges and universities, in the matchless reach of its railway facilities, in the importance of its trade and commerce, in the beauty and extent of its parks and boulevards, in the abundance of every natural product that makes living a comfort and delight, and in the resolute and energetic character of its inhabitants,—that Chicago should have accomplished all of this, and, within the life time of many of its citizens, become the fourth in size of the world's civilized cities, surpassing many of those that have been, for centuries, the commercial and financial centers of the world's trade, industries and wealth,—this makes Chicago the marvel of all the ages."

A GREAT MANUFACTURING CENTER

It was said by Lord Bacon that "there are three things which make a nation great and prosperous, a fertile soil, busy workshops, and easy transportation for

men and goods from place to place." This saying was placed as an inscription on one of the great buildings at the World's Fair in 1893.

As far back as the year 1850, the manufacturing industries of Chicago began to assume considerable importance, amounting in that year to a total value of two and one-half millions of dollars. At that time Chicago was thirteen years old, dating from the period of its incorporation as a city: and had a population of 28,000 souls. There was but one railroad, the old Galena & Chicago Union, the forerunner of the Chicago & North-Western Railway, running as far west as Elgin. The Illinois and Michigan Canal, completed in 1848, was in full operation; and towards the east was the lake route to Buffalo and thence by the Erie Canal to the seaboard.

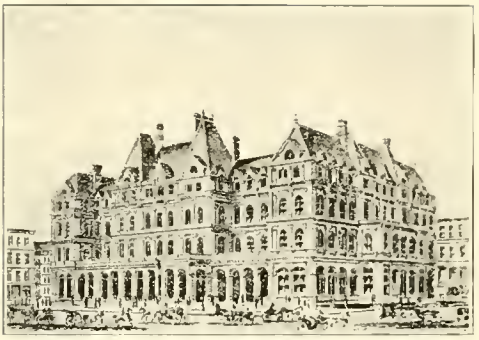
From that time forward the manufacturing interests of Chicago increased as facilities for transportation multiplied. On the 20th of February, 1852, the Michigan Southern & Northern Indiana railroad (now the Lake Shore) entered Chicago, followed on May 20th of the same year by the Michigan Central. During the early "fifties" works were established on an extensive scale for the manufacture of bridge material, wagons and carriages, furniture, soap and candles, harness and saddlery, stoves, agricultural implements, machinery, and railroad cars and engines. The packing industries were also in a flourishing state, their products increasing each year at such a rate as in a few years was to establish the supremacy of this city in this class of manufacturing.

Great hopes were entertained in the fifties that Chicago would become an important point for the manufacture of locomotive engines. The Chicago Locomotive Company claimed that it had a capacity of two locomotives a month. "Every portion of the locomotive," says Bross in his trade review for the year 1850, "will be manufactured from the raw material in this city." This anticipation does not seem to have been realized, though the rolling stock for railroads other than engines has become an important branch of manufacturing.

CONTRIBUTING ELEMENTS OF A MANUFACTURING CENTER

There are a number of factors which contribute to a great center of manufacturing,—proximity to raw materials, favorable climate and health conditions, a numerous population, financial resources, availability of power, abundance of labor, and transportation facilities both by land and water. All these advantages Chicago possesses in an eminent degree. In addition to these favorable conditions there is an extensively populated area lying within a moderate distance from this manufacturing center which absorbs a large share of the immense output of its establishments. "It is estimated," says Plumbe, "that within a night's ride of Chicago, there is a population of more than forty millions of people, or nearly one-half the entire inhabitants of the country."

There are twenty-six different trunk lines of railway, not including four "belt lines," and the interurban lines, using Chicago as a terminus, their stations being located within the business district of the city. These lines of railway represent forty-three per cent of the total railway mileage of the nation. No railroad or railway system runs a train through the city, all trains stopping here. "Chicago is the absolute terminal of every railroad train that enters it." Thus it is that "there is no city on earth that has so vast a range of territory with which it is



UNITED STATES GOVERNMENT BUILDING—POST OFFICE AND CUSTOM HOUSE

By courtesy of the Chicago & Northwestern Railway

NEAR THE MOUTH OF THE CHICAGO RIVER

A tablet in the wall of the building at the left of the bridge indicates this as the site on which historic Fort Dearborn stood.

brought into daily contact as Chicago, and, when the distribution of its manufactories and commercial establishments are considered, no other center can reach so large a number of both consumers and producers as can the city of Chicago."

THE "INDUSTRIAL ZONE"

While the spaces occupied by the industrial interests within the city limits are very extensive, there is a large number of widely scattered establishments situated but a short distance beyond the city's borders, but which are in a greater or less degree tributary to the metropolis. In the census reports of the government the territory occupied by these establishments is included as "the industrial district of Chicago." The Chicago Association of Commerce, however, has taken a wider sweep and adopting the term "industrial zone," have included in the zone about three hundred and fifty industrial establishments situated within the "Outer Belt Railroad," extending from Winthrop Harbor on the north, to Gary, Indiana, on the south, and including the cities of Joliet, Aurora and Elgin.

Within the territory thus generally circumscribed there are about one hundred commercial organizations, "each intent upon enlarging the manufacturing importance of their home town or city." The broad policy and powerful influence of the Chicago Association of Commerce have been exercised to bring these local organizations into closer relations with it and with each other, so that the interests of all have been greatly promoted.

STEEL INDUSTRIES

"It has been said," writes Mr. Plumbe, "that the demand for, and use of, iron is the best measure of a nation's prosperity, a declaration that has ample verification in the United States, and especially in the West. The discovery, in 1844, and the opening of the immense deposits of rich iron ore in the Vermilion, Gogebic, Menominee, Marquette and Mesaba ranges, within easy reach of Lake Superior, afforded new possibilities for manufacturing enterprises. These deposits all lie within a radius of from 350 to 400 miles of Chicago, while to the south of the city are 40,000 square miles of the best deposits of bituminous coal on the continent. . . .

"Following the discovery of this ore there was an effort to establish steel mills at the head of Lake Superior. There was an abundance of iron ore, coal in profusion could be had from Pennsylvania, and it was cheaper to ship the coal to the ore than the ore to the coal. But the effort failed. What was the difficulty? The first obstruction was the absence of a local market to create a demand for and the use of the product of the furnaces. That market was all at the East and what could be saved by not shipping the ore and manufacturing the iron at home was offset by the necessity of transporting the finished products to the East.

"Surrounding industrial plants are, almost invariably, a cordon of industries that draw their sustenance from the parent plant. About great iron industries there will grow up a collection of collateral interests such as factories for making machinery, large foundries and mills of various kinds using the pig iron for the manufacture of iron implements of all kinds from wire nails to steamship plates. The effort to establish iron furnaces near the ore beds utterly failed."

But the establishment of blast furnaces, rolling mills, and steel plants at Chicago and its vicinity, has proved to be entirely successful in uniting the various requirements for this form of industrial development. In the year 1909, there were shipped to the Chicago manufacturing district 6,600,000 tons of iron ore from Lake Superior, and made up into steel rails, structural steel work, and every variety of product required for machine shops and factories of all descriptions, almost at the doors of the blast furnaces. The iron and steel interests of Chicago have already outgrown those of Pittsburg which has heretofore been regarded as the center of the steel industry.

ABUNDANCE OF THE COAL SUPPLY

"Next in importance to iron," says Plumbe, "is coal. In fact, without coal iron ore would be of little value. Illinois ranks second among the states in its output of bituminous coal, the product being about fifty-five millions of tons annually, from a coal area of about forty thousand square miles, and reaching from the Ohio river north to within forty or fifty miles of the city limits."

The steel trade is taken as typical in this instance. It is manifestly impossible in this place to enlarge on every branch of manufacture. In another place the trade in packing house products is touched upon, really the most important of all the products of the Chicago industries.

LABOR CONDITIONS

"There is no principle better settled in the distribution of population," says Mr. Plumbe, "than that labor of all kinds, skilled as well as common, will gravitate to industrial centers, and this is more pronounced when the laborers are of foreign birth than when they are native born citizens of the country. The foreigner comes here for no other purpose than to seek permanent employment at living wages, while, as a very general rule, the native, after a few years, becomes an employer of labor himself, wins his way to a salaried position or is a skilled operative in his chosen occupation. The majority of foreign born working men are unskilled laborers, and it is this class that fills the greater number of industrial plants in this country. . .

"But hard as the life of these toilers may seem to an American, seen from his point of view, they are vastly better off and have more of the comforts of life here than they ever had or could have at home. As compared with other cities Chicago has few crowded tenement quarters, and the laboring man here has as a rule more of home life and its comforts, than can be found in other large cities. While we have crowded spots the laborer has more room, more light, and better air than is usually possessed by people of his class elsewhere."

It is with just pride that the citizen of Chicago can point to the complete educational facilities possessed by the city, so that no child need be prevented from securing a good primary education at least, and if it is desired a high school education at no greater cost than the time required to attend the schools provided at public expense. The compulsory education law is rigidly enforced and the number of children who escape its operation are very few as compared with the total of the juvenile population.

The desire for the associations of city life works to the advantage of the employer of labor. "It gives him an ample number of both skilled and common workmen in his regular business, and in case of an emergency, when he may desire to increase his operating force either temporarily or permanently, he has an unfailing supply upon which to draw. His work need never be delayed or crippled because of a failure to secure competent operatives."

CHICAGO AS A LUMBER MARKET

"While Chicago has always been a large lumber market yet never before in its history have receipts reached such magnitude as during the year 1909, and it still remains the largest market in the United States. It is a great market not only because of the quantity of lumber handled here, but because of the very large variety of woods that make up the stock of the local yards. Purchases can be made of mahogany and other costly lumber from the tropics, cypress from the southern lowlands, and cedars from the forests on the Pacific slope; with pine, spruce, walnut and other lumber products, both hard and soft, from northern forests."

The total receipts of lumber for the year 1909 were upwards of 2,584 millions of feet, an increase of twenty per cent over the receipts of the previous year. Out of these immense receipts there were shipped to other points, mostly to the East, about 961 millions of feet, the difference showing the domestic consumption. "These facts explain why Chicago is the largest furniture market in the country, while for pianos, organs, carriages, and other industries demanding both fine and rough lumber it is not equaled on the continent."

Chicago is also a large producer of cement as well as being the headquarters for selling this product. "It may be safely stated that with its central location, its immense railroad advantages, as well as its facilities for water transportation, Chicago covers a wider field in the collection and distribution of cement than any other point. Chicago cement entered into the construction of the railway terminal building at Washington, and it also helped to construct some of the immense irrigation projects of the West, and has assisted largely in the rebuilding of San Francisco."

MANUFACTURES IN 1905

By the United States Census reports for 1905, there are shown to be a total value of manufactures credited to Chicago of $955,000,000. A few of the larger lines of manufactures which make up this great total are subjoined in the following list, values being given in round numbers.

Beef, Pork, Mutton and Allied Products	$270,000,000
Clothing	65,000,000
Machinery	51,000,000
Publishing and Printing	48,000,000
Rolling Stock for Railroads	36,000,000
Rolling Mill Products	34,000,000
Brewery Products	25,000,000
Bakery Products	25,000,000

Planing Mill Products	20,000,000
Furniture	17,000,000
Coffee and Spices	16,000,000
Electrical Supplies	16,000,000
Paints and Oils	13,000,000
Tobacco Products	11,000,000
Soap	10,000,000
Leather	10,000,000
Patent Medicines	10,000,000
Miscellaneous	278,000,000
Total	$955,000,000

When the results of the census of 1910 are published there will doubtless be shown a large increase in the above figures.

THE BEGINNINGS OF STREET RAILWAYS

At a certain period of development in the history of all growing towns, especially in the West, the advent of the street car is looked upon by the inhabitants as marking the transition from the comparative insignificance of a village community to the splendors of metropolitan life. The old residents can remember with what feelings of pride they witnessed the first street car moving over the rails laid in State street, and heard the tinkling of the bell which was always attached to some portion of the harness of the horses drawing the car. No picture of street scenes in the growing period of Chicago is complete without a street car, or even several of them, shown with the conductor in an attitude of ringing the bell for stopping or starting. With a line of street cars in operation the people of Chicago could defy New York or Philadelphia should they pretend to any superiority over the young metropolis of the West.

Previous to 1859, the only means of local passenger transportation, other than by private conveyances, was by omnibuses, several lines of which were in operation. This method of carrying passengers was used extensively in New York before street railways were introduced, and after rails had been laid the omnibuses formerly in use were fitted with car wheels and continued thus to be used until gradually displaced by street cars of the usual pattern.

Ground was broken for the State street line on November 1st, 1858, in front of the present building occupied by Marshall Field & Co., then the site of the Garrett block. Andreas, in his history, tells us that at the ceremony of breaking ground Henry Fuller handled the spade, and William Bross drove the first spike. "A section of track was first laid between Randolph and Madison streets, and two cars that had been brought from Troy, New York, were placed on this brief initial line and run back and forth, greatly to the amusement of the people."

Owing to threatened proceedings against the new enterprise the projectors obtained from the Legislature a confirmation of their rights as granted in a city ordinance previously passed. The act specified the following persons as incorporators of the "Chicago City Railway Company,"—Franklin Parmelee, Liberty Bigelow, Henry Fuller, and David A. Gage. The term of the franchise was placed at

twenty-five years. Section Eight of the act provided that, "Nothing herein contained shall authorize construction of more than a single track with necessary turnouts, which shall only be at street crossings upon State street, between Madison and Twelfth streets, by the consent of the owners of two-thirds of the property, in lineal measurement lying upon said State street between Madison and Twelfth." The sentiment among the property owners on State street south of Madison was not in general favorable to the street car enterprise, and a sufficient number of consents was obtained with difficulty.

At length, on April 25th, 1859, the line was opened as far south as Twelfth street. The pavement on State street consisted of cobblestones to Twelfth street south of which was a plank road to the suburb of Cottage Grove. By May 1st, a single track line had been extended to Twenty-second street, then known as Ringgold Place; and later in the summer as far as the city limits which were at that time at Thirty-first street, or as it was then known, Ridgely Place.

WEST AND NORTH SIDE LINES

During the summer of 1859 there was much activity in the construction of street car lines, Madison street having a line laid as far west as Robey street, also a line on Randolph street was completed during the same summer. A line was likewise laid on North Clark street which extended as far as Fullerton avenue. At this time North Clark street was planked, and the rails were laid by spiking them to the planks. The track was double to Division street, beyond which it was a single track with turnouts at intervals.

There were now three street railway companies—the Chicago City Railway Company, operating on the South Side, the Chicago West Division Railway Company on the West Side, and the North Chicago Railway Company on the North Side.

THE STREET RAILROADS IN WAR TIME

The depreciation of the currency which began soon after the opening of the Civil War caused especial hardship to the street car companies, then operating in Chicago. When the small change disappeared consequent upon the issue of paper money by the government, which quickly declined in value, the conductors on the street cars had great difficulty in collecting fares. Recourse was had to postage stamps which for a time was almost the sole medium in use for making small change, but the stamps soon became soiled in handling and utterly unfit for use.

The street car companies were obliged to issue tickets representing small amounts, and these, though redeemable only in fares, became an important medium of circulation. It was not until the second year of the war that the government began to issue the so-called "postal currency" for fractional parts of a dollar, in denominations of fifty cents and less. This form of currency relieved the situation greatly, its value remaining on a par, however, with the ordinary government issues which were in the meantime constantly declining.

VARIOUS CHANGES IN OPERATION

The history of the street car systems of Chicago may be condensed in the following paragraphs from information printed in the Daily News Almanac for 1910.

Horse cars—South Side: First line on State street, between Randolph and Twelfth streets, opened April 25th, 1859. West Side: Madison street line, State to Halsted streets, opened May 20th, 1859. North Side: North Clark street line, opened in August, 1859.

Cable cars—South Side: First cable line operated on State to Thirty-ninth streets, January 28th, 1882. North Side: North Clark street line began using cables March 27th, 1888. West Side: Madison street line began using cables July 16th, 1890.

Electric cars—The trolley was substituted for the cable on State street July 22d, 1906; on the Madison street line August 19th, 1906; and on the North Side lines October 26th, 1906.

LATER DEVELOPMENTS OF STREET CAR HISTORY

In later years the street car companies passed through a checkered experience. Several changes in the organizations of the companies occurred, new combinations formed, and new securities issued, until the conflicting interests of stockholders and creditors led to a state of inextricable confusion. The injury to the properties involved and the resulting chaos in the affairs of the companies were mainly due to the stock jobbing operations of one man who came to be regarded as the evil genius of the situation and the author of the whole "traction tangle," and who by reason of his control caused wide variations in the market values of the securities, from which he derived an immense fortune.

These unscrupulous dealings were vigorously and continuously denounced by the press and condemned by public opinion through a number of years, but without avail to prevent the complete success of the plans of the great wrecker and his associates. In another part of this history we have given due credit to the donor of the great telescope and observatory building at Williams Bay, but the fact remains that no greater incubus was ever borne by the people of Chicago than that placed upon their shoulders by the donor of the Yerkes Observatory.

During the period referred to, while the struggle was going on between the companies thus controlled on the one hand and the people on the other, the street car facilities became deteriorated, betterments were neglected, and multitudes dependent upon street car transportation were in an actual state of suffering for want of sufficient accommodations. Meantime the companies were clamoring for extensions on their expiring franchises, but public sentiment was so wrought up by the operations of the manipulators of the securities based upon the properties, that the evils of inadequate service were patiently endured by the people until the companies made the necessary concessions along with the passing of control into new hands more worthy of public confidence. These concessions were finally made and were embodied in an agreement which was ratified at the polls by the people, as will appear in the following paragraphs; and the companies entered upon a settled policy of practical operation in conformity therewith.

THE FRANCHISE OF 1907

The street railways of Chicago are operated at the present time under a franchise approved by a referendum vote of the people on April 2d, 1907. The prin-

BOBTAIL CAR

cipal provisions of the ordinance, as condensed in the City Manual for 1908, are as follows:

The street railway system is to be reconstructed and rehabilitated within three years.

The life of the grant is not to extend beyond February 1st, 1927.

The city is to receive fifty-five per cent and the companies forty-five per cent of the net profits from the operation of the two roads composing the system, namely the Union Traction Company and the Chicago City Railway Company.

Fares for adults to be five cents for continuous trips in one general direction within the present or future limits of the city.

Transfers to be given at all connecting points on and to all lines except in section on South Side between Twelfth street and the river.

All cars to be of the latest and most approved pattern, and to be kept clean, warm and well lighted.

Five million dollars to be paid by the companies toward the construction of subways in the down town section, at the city's option.

The city is given the right to purchase the property of both the present railway systems at any time upon giving six months' notice.

The agreed value of the Union Traction Company's property June 30th, 1906, was $29,000,000; and of the Chicago City Railway Company's property at the same date, $21,000,000. The purchase price for the city is to be the aggregate of these two sums, with the value of work done and property acquired between the date named and the date of the passage of the ordinance, and the cost of rehabilitation and extension.

PERCENTAGE BENEFITS DERIVED BY THE CITY

The revenue derived by the city from the street railway companies, now operating under the provisions of the ordinance granting the franchise above referred to, is shown in the following statement compiled by Mr. Francis A. Eastman, City Statistician, and printed in the City Manual for 1910: For the year ending January 31st, 1908, $1,396,609; for the year ending the same date in 1909, $1,229,734; and for the year ending in 1910, $1,130,538. These amounts represent fifty-five per cent of the net earnings of the street railways of Chicago.

In addition to the percentages paid into the city treasury, as shown above, the taxes paid by the street railways for the corresponding periods were, in 1908, $139,305; in 1909, $829,063; and in 1910, $1,137,177.

The total number of passengers carried on all the street railways for the year 1909, as reported in the City Manual for 1910, was 843,507,289.

It may be remarked that as the result of their experiences with the street car companies the people have become peculiarly sensitive to any further proposals which may involve changes to the detriment of the public interest. The fruits of the victory won when the settlement of April 2d, 1907, was consummated after many years of agitation, will not be lost through any relaxation of vigilance it is safe to say; and when a proposal was made in October, 1911, by the interests in control of the street railway companies to form a combination with the recently consolidated elevated railway companies, it did not create a favorable impression.

The *Chicago Tribune*, in its issue of October 10th, 1911, said editorially: "The

people of Chicago are more jealous of their transportation facilities than are the people of any other city. For years they suffered the inconvenience of a broken down, antiquated system in order to establish their right of control over that of stock market speculators. In their hour of victory they are going to lay down nothing of what they have gained in the interests of consolidation. On the contrary, they will insist on having as much control over the consolidated companies as they now have over any of the separate lines. They will insist that of the economies derived from consolidation they shall have the lion's share, leaving the financiers a fair charge for conducting the transaction."

ELEVATED RAILROADS

The first elevated railroad structure in Chicago was that of the Chicago & South Side Rapid Transit Railroad, colloquially known as the "South Side L," and often as the "Alley L," the latter term used from the fact that its route lay through the alleys as later described. The company bearing the above title was incorporated January 1st, 1888, with a capital of $7,500,000. The first crude experiment in building an elevated railway was that made in New York city in 1867, which after a few years began to develop rapidly into a complete system connecting the north and south parts of that city. The projectors of the Chicago enterprise were enabled to avail themselves of the experience gained by the builders of elevated railways in New York.

"The first franchise granted by the City Council," say Moses and Kirkland, in their history of Chicago, "conceded the right to construct and operate a road from Van Buren street to Thirty-Ninth street, then the city limits, between State street and Wabash avenue; and to acquire, by purchase or condemnation, the necessary land or right of way, not to exceed thirty feet in width, parallel with the alley line. In this respect the road was unlike any other theretofore constructed, as all the Eastern roads are built in the streets. It also differed from most other street railways in the fact that it did not use a public easement, but purchased and paid for its own right of way."

CONSTRUCTION OF THE SOUTH SIDE ELEVATED RAILROAD

Ground was broken for the construction of the South Side Elevated railroad in December, 1889. In 1891, the city limits having in the meantime been extended far to the south, the road was permitted to extend its line eastward on Fortieth street as far as the alley between Prairie and Calumet avenues, thence south to Sixty-Third street, and along the latter street to Jackson Park. During the summer and fall of 1892 the road began to operate its trains throughout nearly its whole length, the motive power being supplied by engines. Both cars and engines were modeled upon those in use in New York. The road was ready to transport passengers to its full capacity at the opening of the World's Fair on May 1st, 1893. At that time its equipment consisted of one hundred and eighty cars and forty-five engines. Its usefulness proved to be very great during the period of the Exposition, a terminal station being established over the Transportation Building, convenient for visitors to the Exposition. After the close of the Exposition the

terminal station of the line was withdrawn to its present location at the corner of Stony Island avenue and Sixty-third street.

In common with the other elevated systems this road began using the Union Loop in the fall of 1897. Branches were later established connecting the main line with the Union Stock Yards and Englewood. This road carried 42,722,624 passengers in the year ending December 31st, 1909.

The motive power on this road was changed from steam to electricity July 27th, 1898.

THE METROPOLITAN ELEVATED RAILWAY

Of the different elevated railway systems now operating in Chicago the Metropolitan Elevated Railway Company was the pioneer in the use of electricity in moving its trains, a practice that is now common to all the lines. This company was organized in March, 1892, and two years later trains began running from its terminal station on the south side situated on Franklin street near Van Buren. In 1897, the road began using the new Union Loop, whereby its passengers were carried directly to any point of the business district of the city reached by the route of the Loop structure.

In its construction, and equipment of rolling stock, the claim is made that it was superior to any similar structure in existence at the time it was built. The tracks, like those of all elevated railways, are protected by guard rails, the switches provided with safety interlocking devices, and a system of signals is in use designed to prevent accidents. The great advantage possessed by elevated railways is that by reason of their structures being above the street level the numerous chances for delay from street traffic are entirely eliminated.

Leaving the Union Loop at Fifth avenue and Van Buren street, the road crosses the South Branch at a point just south of Jackson street bridge, and runs west as far as Marshfield avenue as a four-track road. Here the line divides, one branch leading towards the southwest, another towards the northwest, thus serving extensive regions on the great West Side. These branches are again subdivided as more distant points on the line are reached. There are about twenty-five miles of elevated structure in the Metropolitan system. The number of passengers carried by this road for the year ending December 31st, 1909, was 55,519,600.

THE LAKE STREET ELEVATED RAILROAD

An ordinance was passed December 19th, 1892, confirming to the Lake Street Elevated Railroad Company the transfer of a franchise granted under several previous ordinances for a proposed elevated road, the general route of which had been established along West Lake street, from Canal street to the city limits. On May 15th of the following year this road was granted the right to extend the eastern end of its line across the river, passing over Market street south to Madison. It was not until October 1st, 1897, that the road received permission to pass over the Union Loop.

In later years the name of the road was changed to the Chicago & Oak Park Elevated Railroad. Its private right of way now extends from Fifth avenue and

Lake street, to Willow avenue in Oak Park. This road carried 16,197,895 passengers in the year ending June 30th, 1910.

NORTHWESTERN ELEVATED RAILROAD

A city ordinance was passed in January, 1894, authorizing the construction of an elevated road on the North Side, known as the Northwestern Elevated Railroad. Its construction was delayed by reason of financial difficulties, but at length, on May 31st, 1900, it was opened for traffic. With the extensions made in later years it now reaches far to the north, passing beyond the city limits to its terminus near to the northern boundary of Evanston. It also has a branch to Ravenswood. In all it has some twenty miles of structure, a large portion of it equipped with four tracks. The number of passengers carried by this road in the year ending June 30th, 1910, was 42,845,132.

THE UNION LOOP

Trains commenced to run over the elevated structure known as the Union Loop on October 4th, 1897. This structure carries the largest train service in the frequency with which trains pass over it of any in the world. All four of the elevated railway systems of Chicago make use of the Loop which is provided with double tracks, the trains of two systems passing in one direction while those of the other two pass in the opposite direction.

The Union Loop has about four miles of elevated structure, and there are eleven stations on its line.

All the elevated lines, including the Union Loop, were consolidated in the latter part of July, 1911, under the name of the Chicago Elevated Railways.

OLD AND MODERN NAMES OF STREETS

It is one of the curious facts in the development of a rapidly growing municipality, like that of Chicago, that for one reason or another or for no reason at all, the names of streets are frequently changed. It would seem that such changes as we have observed could be inspired only by whims in many cases, though it must be allowed that changes are often made to conform to some system which is adopted in the interests of greater public convenience. In the main the changes which have been made are improvements in this regard. But it is a fact that the mere exchanging of one name for another, dictated by chance suggestions, has resulted in the loss of many names of historical significance. It is certainly desirable to preserve the names that have some relevancy to the city's history, names that may perpetuate the memory of worthy citizens or indicate some historical event.

"Local names—whether they belong to provinces, cities and villages, or are the designation of rivers and mountains—are never mere arbitrary sounds devoid of meaning. They may almost always be regarded as records of the past, inviting and rewarding a careful historical interpretation."

This very appropriate passage from the writings of Isaac Taylor may fittingly be taken to apply to the names of streets, avenues, parks, and all city localities requiring names to distinguish them.

Del Prado Hotel

Blackstone Hotel

Hotel LaSalle

Hotel Sherman

Chicago Beach Hotel

Palmer House

GROUP OF PROMINENT CHICAGO HOSTELRIES

We have in a previous portion of this history spoken of the names applied to streets in the original town of Chicago. Without enumerating all the interesting names by which a large number of the streets and avenues are now known we will mention a number of the old names that have disappeared entirely from our street nomenclature.

On the North Side, Wolcott street (named after Alexander Wolcott, one of the very early residents), was changed in later years to North State street. The diagonal portion of Rush street, north of Chicago avenue, was formerly called Green Bay Road. Lincoln avenue was formerly known as Little Fort Road, as it was the main road to Little Fort, now Waukegan. The Indian boundary line in Rogers Park, marking the northern boundary of a tract ceded by the treaty of 1816 made with the Indians, was changed in recent years to Rogers avenue. Locust street formerly bore the name of White street, so named in honor of Julius White, a general of the Civil War. These few examples might be multiplied to include a great number of less known streets.

On the West Side, Robey street was formerly called Cornelia street; West Eleventh street was formerly called Kansas street; Milwaukee avenue was formerly known as Northwestern Plank Road; Center avenue was formerly called Rucker street; Ashland avenue was formerly called Reuben street; Ogden avenue was formerly known as the Southwestern Plank Road; and Oakley avenue was formerly called Iglehart avenue.

On the South Side, Edina place was changed to Third avenue, and still later to Plymouth court; Buffalo street was changed to Fourth avenue, and still later to Federal street; Fifth avenue was formerly called Wells street; Thirteenth street was formerly known as Cooper street (named in honor of J. Fenimore Cooper); Fourteenth street was formerly Liberty street; Fifteenth street was Springer street; Sixteenth street was North street; Seventeenth street was New street; Eighteenth street was Old street; Nineteenth street was Cross street; Twentieth street was Bridge street; Twenty-first street was Commerce street; Twenty-second street was originally South street and later Ringgold place (this and the five following names were given at the time of the Mexican war); Twenty-third street was Palo Alto place; Twenty-fourth street was Monterey place; Twenty-fifth street was Buena Vista place; Twenty-sixth street was Rio Grande place; Twenty-seventh street was Northern avenue; Twenty-eighth street was Southern avenue; Twenty-ninth street was Hardin place; Thirtieth street was Yates street; Thirty-first street was Ridgely place. The last mentioned street was the city limits from 1853 to 1863. Passing south to Thirty-ninth street it may be mentioned that its former name was Egan avenue.

ORIGIN OF SOME EXISTING STREET NAMES

It would be a task quite impossible within the limits of this work to mention all the names of streets of the city which together have a total length of 2,860 miles. A few of the better known streets, however, are mentioned with the origin of their names as found in Andreas' work.

North Side:—Astor street, after John Jacob Astor; Bissell street, after W. H. Bissell, governor of Illinois in 1856; Burling street, after Edward Burling, archi-

teet; Clybourn avenue, after Archibald Clybourn, pioneer; Dayton street, after William L. Dayton, first vice-presidential candidate of the Republican party; Fremont street, after John C. Fremont; Fullerton avenue, after Alexander N. Fullerton; Larrabee street, after William M. Larrabee; Sedgwiek street, after Robert Sedgwick; Sheffield avenue, after Joseph G. Sheffield; Whiting street, after William L. Whiting.

West Side:—Ann street, after Mrs. Philo Carpenter; Carpenter street, after Philo Carpenter; Elizabeth street, after Elizabeth (May) Curtiss; Curtis street, with slight change in spelling, after James Curtiss, once mayor of Chicago; Flournoy street, after Lafayette M. Flournoy; Halsted street, after the family name of two brothers of that name, Caleb O. Halsted and William M. Halsted, residents of New York, who made investments in real estate on "Goose" Island; Hoyne avenue, after Hon. Thomas Hoyne; Laflin street, after Matthew Laflin; Law avenue, after Robert Law; Leavitt street, after David Leavitt; Loomis street, after H. G. Loomis; May street, after Elizabeth May Curtiss; Ogden avenue, after William B. Ogden; Paulina street, after the wife of Reuben Taylor (Reuben street, afterward Ashland avenue, was named for the same man); Robey street, after James Robey; Throop street, after A. G. Throop; Sheldon street, after E. H. Sheldon; Warren avenue, after Daniel Warren; Wood street, after Alonzo C. Wood.

South Side:—Archer avenue, after Colonel William B. Archer, a former canal official; Eldridge court, after Dr. John W. Eldridge; Harmon court, after Charles Loomis Harmon; Hubbard court, after Henry George Hubbard; Peck court, after Judge Ebenezer Peck; Sherman street, after Alson S. Sherman, once mayor of the city; Stewart avenue, after General Hart L. Stewart, a former postmaster; Wallace street, after John S. Wallace; Wentworth avenue, after Hon. John Wentworth. The men after whom the four "courts" were named are here given in accordance with information furnished to the writer by Mr. George H. Fergus.

The origin of many of the street names is sufficiently self-evident, and no attempt is made to mention them here. The subject of street names, to be adequately presented, would require an exhaustive research.

Enough names are here mentioned, perhaps, for the purposes of the general reader, but there is an opportunity for a student with the necessary amount of industry to make a valuable addition to the rapidly growing mass of historical material, by covering the whole field of street name origins.

THE SETTLEMENTS IN CHICAGO

A close student of American life has observed that "no city in the country has been so steadily and deeply influenced by the social settlement movement as has the city of Chicago."

That is a singular distinction and suggests that something should be said here upon that point. One finds, upon investigation, that the story of Hull House is not simply the story of a single successful institution (Canon Barnett of Toynbee Hall, London, calls Hull House "the most successful social settlement in the world"); it is also the story of the birth and growth of many of the sanest movements which Chicago has witnessed for the improvement of living conditions, of industrial conditions and of educational and cultural opportunities.

What is true of Hull House is likewise true—in varying degrees—of the thirty-odd settlements in the city. Some, like Chicago Commons, have emphasized the improvement of neighborhood political conditions; others, like the University of Chicago which is situated near the stockyards, have been drawn into strikes and investigations of industrial conditions. But nearly all of them, through their residents, have taken an active part in the larger civic movements which have marked the city's growth during the last quarter of a century.

The social settlement may be defined as an attempt to span the gulf between the rich and the poor,—or between those who have had cultural opportunities and those who have not—by the process of neighborliness. Those who plan to form a settlement select a home for themselves in that part of the city, usually a more or less congested quarter, where they choose to work. They live there, inconspicuously at first. They get acquainted in the normal way. They start, perhaps, a kindergarten for the children; then classes for the young people; then a mother's club, or a men's club. Their close observation of actual neighborhood needs cures them of theoretical errors and their work develops, step by step, to meet actual local conditions. As their work grows, it overflows the original home; outside friends who are interested, raise funds; new, well-equipped buildings go up and the neighborhood has an adequate neighborhood center.

The story of Hull House will show this process and bring out the important reactions of the settlement movement upon the city.

HULL HOUSE SETTLEMENT

Hull House, which its Italian neighbors call affectionately "la casa di Dio," is one of the oldest and best organized settlements in the United States and quite the oldest and largest in Chicago. It was founded in September, 1889, by Miss Jane Addams and Miss Ellen Gates Starr. These two women secured possession, rent free until 1910, of a large old-fashioned residence at 800 South Halsted street, on the south-west corner of Polk. This place had been the home in the early '60s of Mr. Charles J. Hull, a well-to-do real-estate owner and stood, in its clump of oak trees, a considerable distance west of the scene of the great fire and thus it escaped destruction. When its new tenants took it over, the neighborhood had quite lost its rural character. It had become immigrant and industrial. "To the Chicagoans of 1889 this was the most 'foreign' spot in Chicago, with its congeries of colonies of Greeks, Italians, Jews, Bohemians, French and Irish."

When the House was incorporated in 1894 with a board of seven trustees, its aims were formally stated in its charter thus:

To provide a center for the higher civic and social life; to institute and maintain educational and philanthropic enterprises, and to investigate and improve the conditions in the industrial districts of Chicago.

Both Miss Addams and Miss Starr were church members, but the neighborhood was so full of sensitive, mutually antagonistic religious sects that both of them perceived that they would alienate more people than they would help if they undertook to proselytize for their own denominations. So they adopted a strictly secular attitude. This aroused no criticism at first but, three years after the House was founded, a writer in "The Advance," a Congregational weekly, attacked their non-sectarian policy in an article entitled: "And Not Leave the Other Undone."

Since that time Hull House has encountered much criticism of that sort but has never varied its attitude. Its doors are open to people of all religious faiths and of none.

The work began modestly. Miss Addams and Miss Starr called upon their neighbors and invited the latter to return their calls. Then a kindergarten was opened and then a cooking class for girls which met in the kitchen. Three evenings a week were set aside for social receptions. One was "open house" for the French, another for the Germans, and a third for the Italians. On Monday afternoons the Italian girls gathered to sew and listen to the reading of stories. On Tuesday evening the house was full of Boys' Clubs. Wednesday evening was devoted to the "Social Science Club" which debated problems in economics, politics and philosophy. On Thursday afternoon a woman physician talked to the neighborhood women on physiology and hygiene, and on Friday evenings a club of working girls met for a program that was partly social, partly literary. The next year saw a night school established, and a popular concert course. Summer outing work began. From that point the regular activities of the House grew and varied.

In the beginning, the house itself sufficed for the clubs and classes which were organized, but within a couple of years the overflow began. A small frame cottage nearby was annexed for a "diet kitchen." Another one housed the "Jane Club," a cooperative club of self-supporting young women. Another building, once a saloon, was converted into a gymnasium. A six-room cottage became a day nursery. Then the friends of the House began the generous donations of land and buildings and funds which have made possible the remarkable plant which now goes under the generic name of Hull House. Besides the old building, to which have been added extensive wings, the settlement group includes the Butler art gallery; the large apartment building in which the residents live; the Boys' Club House; the Woman's Club House; the Jane Club; and the Labor Museum. The support of the settlement work comes partly from the neighborhood and partly from the larger public. Says the Year Book: "Approximately one-half of the annual budget of Hull House is defrayed by its rents, fees, sales and a small endowment. The remaining half must be met through the generosity of the public."

Hull House was drawn rapidly into the labor movement. Residents of the House were asked to help the shirt-makers in a nearby factory organize during a strike in 1891. The following year the cloak-makers in the neighborhood met at the House and formed a union. That year Mrs. Florence Kelley was appointed by the State Bureau of Labor Statistics to investigate conditions in the sweat-shops. As the result of the agitation which ensued the General Assembly passed the Workshop and Factory Act of 1893, which (1) reduced the number of small children in the shops; (2) partially succeeded in separating the homes from the shops: (3) partially succeeded, for a time, in securing the eight-hour day for girls and women, though that clause was subsequently declared unconstitutional. Mrs. Florence Kelley was appointed the first state factory inspector by Governor Altgeld and Mrs. Alzina P. Stevens, also a resident of the House, was made deputy factory inspector. They continued in this position until 1897 when the Alton glass interests pursuaded Governor Tanner to remove Mrs. Kelley and appoint one of their ex-employes as factory inspector. Public resentment of this led to further and successful agitation for the strengthening of the child labor law.

When the Pullman strike of 1894 occurred, Miss Addams urged that the dispute be arbitrated. This was the unpopular position, most of the newspapers agreeing with Mr. Pullman that "there was nothing to arbitrate." Some prominent donors deserted the settlement on account of Miss Addams' "radical stand." But the newly formed Civic Federation, which had been organized by Miss Addams, Professor Graham Taylor and others, to combat aldermanic corruption, took up the cause of arbitration. Out of the discussion there finally grew a public demand for a State Board of Arbitration and Conciliation which was finally granted by the General Assembly.

Out of the Civic Federation, which owed its inception almost wholly to the settlement people who wanted help in driving the "grey wolves" from the City Council, grew the Municipal Voters' League which has always had a number of active settlement residents upon its board. Hull House, in particular, has never succeeded, as has Chicago Commons, in local politics It tried for several years to defeat Alderman John Powers, the local "boss" of the Nineteenth ward, but never succeeded. One of its campaigns was managed by Mr. George C. Sikes, then a resident of the House, and well known subsequently as a municipal reformer. Mr. George E. Hooker, who brought a constructive as well as a critical mind to bear upon many of Chicago's civic problems, has been for many years a resident of the House. A bare recital of the movements in which Hull House has cooperated must bring this account to a close. Such a list can not be complete but it will at least be suggestive. It would include the agitation for a juvenile court; the campaigns of 1900 and of subsequent years for housing reform; the fight to drive politics out of the sanitary bureau of the city; the reorganization of the County Infirmary at Dunning; the securing of public baths, of small parks, of vacation schools; the promotion of industrial education, of medical inspection in the schools; the campaign of 1904 and subsequent years against the cocaine traffic and the "white slave" traffic.

OTHER SETTLEMENTS

Among the other larger settlements in Chicago may be cited the Northwestern University settlement (1891); Maxwell Street House (1893); Chicago Commons (1894); University of Chicago settlement (1894); Eli Bates House (1895); Neighborhood House (1896) Gad's Hill Center (1898); Henry Booth House (1898); Frederick Douglass Center (1904); Lincoln Center (1907); and South End Center, in South Chicago (1907).

POST OFFICE LOCATIONS AND POSTMASTERS

The various locations of the post office have been mentioned incidentally throughout the previous portions of this history. A succinct statement with dates will here be given.

The post office at Chicago was established on March 31st, 1831, during the administration of President Andrew Jackson. Jonathan N. Bailey was the first postmaster. This was in the same month that Cook County was organized. The first location of the post office was, as one writer called it, at the "sharp snout" formed by the junction of Lake and South Water streets near the present Lake street bridge.

On November 2d, 1832, Bailey was succeeded by John S. C. Hogan,

who in 1836 removed the post office to the corner of South Water and Franklin streets. It was during Hogan's term as postmaster that the editor of the *Democrat* became "furiously enraged at the mail carrier who after a week's absence returned to Chicago with the very mail he had taken away."

The next postmaster was Sidney Abell who was appointed on March 3d, 1837. At about the same time the post office was removed to the east side of Clark street, between Lake and South Water streets. On July 10th, 1841, William Stuart, proprietor of the Chicago *American,* was appointed postmaster, and he removed the post office to the opposite side of Clark street at the corner of the alley north of the Sherman House. Here it remained some ten years under a number of different postmasters. A sign displayed at the delivery window bore the inscription "first come, first served."

Conditions were very different in those days from those we are familiar with. "There were then," says Hurlbut, "no letter carriers for free delivery, no postal orders, no registered letters, no postal cards, no postage stamps, no envelopes; wafers were the ordinary clasps which fastened the missives, but wax was required by those who wished to affect the genteel." The rates of postage at that time were, for letters of a single sheet, six and a quarter cents for a distance not exceeding thirty miles; ten cents for over thirty and under eighty miles; twelve and a half cents for between eighty and one hundred and fifty miles; eighteen and three-quarters cents for between one hundred and fifty and four hundred miles; and twenty-five cents for over four hundred miles.

On February 3d, 1846, Hart L. Stewart received the appointment as postmaster, and he in turn was succeeded, on September 25, 1850, by George W. Dole. It was during Dole's term that the post office was again removed across the street to numbers 49 and 51 Clark street, thus occupying quarters near its former location when Abell was postmaster. Isaac Cook was the next incumbent who was appointed March 22d, 1853. Cook removed the post office early in 1855 to numbers 84 and 86 Dearborn street; subsequently occupying additional space on the south. It was during the latter part of Cook's term that the post office was removed to the new building erected by the government at the northwest corner of Dearborn and Monroe streets. Cook claimed that he was instrumental in getting the appropriation for the new building, though the location was criticised as being an inconvenient one and "too far out on the prairie." The new building was occupied November 22d, 1860. It had been more than five years in process of construction. The *Tribune,* commenting upon the new post office, said: "probably it has no superior in the United States, and must ever remain a prominent object of pride and interest, both to residents and strangers."

THE POST OFFICE DURING THE WAR AND SUBSEQUENTLY

John L. Scripps was appointed postmaster by President Lincoln on March 28th, 1861, and continued in this office throughout the period of the Civil War. In a separate place we have spoken of the distinguished services of Mr. Scripps and his staff during that period. On March 9th, 1865, Samuel Hoard was appointed postmaster, and he in turn was succeeded by Robert A. Gilmore on November 16th, 1866. Gilmore was drowned in the lake, and soon after, on the 27th of August, 1867, Francis T. Sherman was appointed. He was succeeded on April 5th, 1869, by Francis A. Eastman.

It was during Eastman's term that the great Chicago fire of October 8th and 9th, 1871, occurred. The post office was re-opened at the corner of State and Sixteenth streets, and soon after, December 24th, 1871, it found more convenient quarters in the Methodist church at the northwest corner of Harrison street and Wabash avenue. John McArthur succeeded Eastman as postmaster on February 18th, 1873. Meantime the government decided on a new location for the post office and secured possession of the block bounded by Clark, Adams, Dearborn and Jackson streets, and began the erection of a building to cover the entire block. This building cost four millions of dollars and was occupied by the post office and other departments of the Federal government on April 12th, 1879; but not until several removals of the post office other than those previously mentioned had taken place.

Its occupancy of the Methodist church continued until the extensive conflagration of July 14th, 1874, drove it out, and quarters were then secured on the West side, at the northwest corner of Halsted and Washington streets. On the 24th of the following August the post office took possession of the "Honore building," at the southwest corner of Dearborn and Monroe streets. Frank W. Palmer was appointed postmaster February 2d, 1877, and on the 4th of January, 1879, the post office was once more driven from its quarters in the Honore building by fire. It was obliged to find temporary shelter in the "Singer building," then recently completed on the northwest corner of State and Washington streets, where it remained but a short period, that is, until the following April, when it moved into the new structure. Palmer was succeeded in May, 1885, by Solomon C. Judd, who gave way on November 19th, 1888, to Walter C. Newberry. The next appointment was that of James A. Sexton on April 16th, 1893. Washington Hesing received the next appointment on November 25th, 1893.

In 1896 the costly building occupied by the post office and other government offices was found to be in a ruinous condition on account of insecure foundations and other faults of construction, and it was accordingly condemned. Thus after only seventeen years of use this great building, which was expected to endure for ages, was abandoned, and the post office found quarters in a temporary building constructed for its purposes on the lake front occupying a large space to the north of the Art Institute. Here it remained until 1905, awaiting the removal of the old building and the construction of the present new and splendid Federal building familiar to our citizens at the present time, and where the post office at length seemed to find a permanent home.

On March 19th, 1897, Charles U. Gordon was appointed postmaster, and continued in office until succeeded by Frederick E. Coyne on April 1st, 1901. Coyne was succeeded by Fred A. Busse on January 8th, 1906. Busse resigned in April, 1907, on being elected mayor of Chicago. Daniel A. Campbell, the present postmaster, was appointed to that office on April 15th, 1907.

CHAPTER LX

PRESENT DAY MOVEMENTS—A LOOK INTO THE FUTURE

THE CHICAGO ASSOCIATION OF COMMERCE—PRINCIPLES AND PLANS—ITS COMPLETE ORGANIZATION—ACTIVITIES OF THE ASSOCIATION—GREAT VALUE OF ITS PUBLICATIONS—WORK OF ATTRACTING CONVENTIONS—COMPARISON WITH THE CHICAGO COMMERCIAL CLUB—CITY BUILDERS OF THE PAST—CHICAGO'S RAPID EXPANSION—SPONSIBILITY OF THE COMMUNITY—MAYOR BUSSE'S COMMUNICATION TO THE COUNCIL—THE CHICAGO PLAN COMMISSION FORMED—ENDORSEMENT OF THE CHICAGO COMMERCIAL CLUB—CITY BUILDERS OF THE PAST—CHICAGO'S RAPID EXPANSION—PRELIMINARIES CONSIDERED—LAKE MICHIGAN'S PART IN THE PLAN—BOULEVARDS AND LAGOONS—THE "CIVIC CENTER" DESCRIBED—GROUPS OF BUILDINGS PLANNED—INCENTIVES TO THE GREAT ENTERPRISE—PRACTICABLE NATURE OF THE PLAN—LOOKING INTO THE FUTURE.

THE CHICAGO ASSOCIATION OF COMMERCE

THE splendid record made by the Chicago Association of Commerce in recent years has riveted the attention of the people upon the wonderful activities of that association. Along in 1895 there was an organization in Chicago known as the Merchants' and Travelers' Association, having for its aims the promotion of Chicago trade by attracting country merchants to this market. This association later became merged into the Chicago Commercial Association, and a banquet was held at which there was a large gathering of members and friends of the older organization. At this time new and progressive policies were inaugurated, to be carried out under the auspices of the new association. The leading spirits in this movement were Edward M. Skinner, Edwin Sherman, A. M. Compton, and a number of the younger men connected with a wide variety of business houses of the city.

This association continued under the name adopted at that time until 1908, when in deference to the Chicago Commercial Club, with which its name was constantly confused, the name was changed to that of the Chicago Association of Commerce. Throughout its years of activity there has been a steady broadening of the principles and scope under which the association has carried on its work. Its aims and purposes, as they have now become established, are more exalted in character than are usually found in the advertising formulas of commercial bodies. Their programme embraces all the religious, educational and artistic agencies that are found in a large and enterprising community like that of Chicago, and these are regarded as of equal importance with the usual commercial inducements and as legitimate subjects of their attention.

SHERIDAN ROAD

The older idea of a commercial association, that the manufacturing and commercial facilities should alone be emphasized, gives way to the broader and more comprehensive policy of advertising those attractions which appeal to the higher nature of individuals whether in trade or in any other situation in life. "It has been truthfully said that commerce can make a large city but never a great city," said President Edward M. Skinner in his annual address in 1909. "Whether the reputation is deserved or not, Chicago is known to the world as an industrial and commercial city, a city where the interest in material things predominates, where the finer and nobler qualities of mankind are neglected. The work of this association the past year has gone far to show the world, which also means the uninformed and skeptical of our own country, that Chicago *is* a great city as well as a large one."

The leading principle actuating the purposes and plans of the Chicago Association of Commerce is that there can be no advance in the commerce of the city without bringing the contributing elements, the buyers and clients from every section, into actual contact with all the activities of the community,—not only those of a commercial character, as for example the great business and manufacturing establishments, but the pleasure-giving attractions, the institutions of every kind and description, and above all, providing for the safety and comfort of every visitor to the city. Chicago abounds in attractions often but little known to the visitor whose knowledge of the city extends scarcely beyond that required for his business dealings.

PRESENT STATUS OF THE ASSOCIATION

The gradual evolution of its organization has brought the association to a high degree of efficiency in the line of its activities. Numbering thirty-eight hundred members at the close of 1910 its work is carried on by means of a staff of officers and a board of twenty-seven directors. The president is the chief executive officer and is chosen by the entire membership. There are four vice-presidents who are at the head of the four main divisions of the association, namely: Inter-State, Local, Civic-Industrial, and Foreign Trade. The Executive Committee is composed of twenty-four members of which the president is ex officio chairman. The Executive Committee is appointed by the Board of Directors, and acts for it in matters pertaining to the policy of the association.

This committee has large powers exercising an oversight of the standing committees and regulating and harmonizing their work, so that confusion will not result in the wide field within the scope of which they act. Its meetings are held weekly, and it alone declares the policy of the association. There are nineteen standing committees, and special committees are created as emergency service may require.

One of the largest of the standing committees is the Ways and Means Committee which is the "open forum" of the association, holding meetings weekly throughout the year. The meetings of the Ways and Means Committee are open to the association's entire membership. "In no other public place, save in the great mass meetings of the association, can a member remotely in touch with association work, so quickly and with so much enthusiasm come to understand the association's aims and policies."

"The plan of organization and its executive methods," says Mr. Skinner, "have

been recognized as the broadest, most comprehensive and efficient of any commercial association in the world, and it has been adopted in whole or part by like organizations in many cities and towns throughout the country. The association, through its officers and executive staff, stand ready at all times to lend a helping hand to any business body in the country with advice and co-operation to aid in building up a strong organization representative of the commerce of its own city and environs."

ACTIVITIES OF THE ASSOCIATION

The report of the president, Mr. Homer A. Stillwell, for the year 1910, is replete with suggestive references to the work of the association. "We believe the sum total of the year's accomplishments," he says, "is proof of advancement of the association as a factor in the development of a public spirit which makes for a stronger pride and greater confidence in our city, coupled with a determination to further its civic and material interests. . . . We have kept prominently in mind our well-defined policy which excludes consideration of questions involving special or limited interests, yet we have reserved the right to decide for ourselves whether a particular question may be one of politics or one of business."

In the report of the Secretary, Mr. Charles W. Folds, it is said that "the development of the individual as a thinker on important public questions, and more particularly the number of business men upon Association committees, who are learning to express themselves easily and clearly before an audience, is one of the interesting and encouraging results of our work." The total income of the association for the year 1910, comprised almost wholly of membership fees, was $191,000, while the expenditures were about $167,000. This permitted the association to carry $24,000 to its surplus in the general fund, the sum of which has now reached with the savings of previous years the gratifying total of $109,000.

Nothing can better illustrate the wide range of the work of the association than a brief reference to the subjects discussed and acted upon during the year 1910. Several sessions of the Executive Committee were devoted to the Waterway question. "After a most thorough discussion," says the report of the chairman, Mr. Harry A. Wheeler, "a policy for waterway construction was determined, the word 'deep' was eliminated in outlining this policy, and the following resolution adopted: 'Resolved, that the Executive Committee of the Chicago Association of Commerce hereby endorses the improvement of a waterway from the Lakes to the Gulf to the fullest extent practicable, the question of depth of said waterway to be determined by the Government's engineers.'" This is undoubtedly the soundest pronouncement which has yet appeared in all the voluminous discussions of this subject.

Four activities stand out prominently in the work of the committee for the year covered by the report. The first was an inquiry concerning the character of the charities seeking public support, in response to the suggestion made by Mayor Busse that the association take up this work. This resulted in the creation of a "Subscriptions Investigating Committee," the scope of which is to ascertain the merits of all applicants for subscriptions—charitable, philanthropic and civic. It is believed that the work of this committee will be the means of saving large sums of money to the business public of Chicago, or at least of diverting these sums into right and useful channels.

The second one of these activities is concerned with Sidewalk Encroachments, a subject which has received careful study, and it is hoped that some relief will be found for some part of the congestion in the loop district resulting from this cause. The third is concerning the abuses arising from the system of salary loans, which it will be the endeavor of the association to have rectified by suitable legislations and the fourth is concerning the Electrification of Railway Terminals. This latter subject is in process of investigation in co-operation with the city authorities.

ENTERTAINMENT AND PUBLICITY

Frequent banquets are given by the Association to which are drawn distinguished visitors, and on such occasions the purposes of the organization are rehearsed and enlarged upon. "Trade extension trips" are made from time to time, a party of the members visiting many points throughout the various states and Canada, and even to places as far distant as China, Japan, Hawaii and the Philippines. Diligent efforts are constantly made to attract various conventions and associations holding annual meetings to gather in this city, and such bodies are assisted in procuring accommodations both in the matter of suitable halls for their meetings and comfortable places to stay while in the city. The General Publicity committee has a News Bureau from which is issued daily to some three hundred and fifty publications—newspapers, magazines, and trade periodicals—bulletins of information and news. There is likewise a weekly publication issued entitled, "Chicago Commerce," devoted to the subjects of interest to the Association.

Other publications are a "Chicago Guide," and a "Handbook of Museums and Libraries." A volume entitled, "Chicago," a work prepared by Mr. George E. Plumbe, a man well qualified for the task by long experience in journalism, setting forth the industrial advantages of the city, was completed and sent out during the year 1910. It had been felt that some stronger and more convincing arguments should be made regarding the industrial and commercial advantages possessed by Chicago than had heretofore been presented. Ten thousand copies of this little work were distributed through various channels, and it has met with a most cordial reception. "It is used in some of the city schools and public offices as a reference book," says the report, "and has been called for by commercial bodies and historical societies very generally in the Mississippi Valley, and has been placed in the library of every important college and university in the United States. Many copies have been sent abroad at the request of American consuls and others in the diplomatic service. It has given a wider publicity, not only at home but abroad, to Chicago, and its advantages as a market and industrial center than any previous publication of a similar character, as it was very widely distributed among industrial concerns which were considering changing the location of their establishments."

There was also a most useful publication issued by the Association, entitled, "The Way to Ship," intended to aid shippers to route their freight deliveries so as to obtain the best and quickest service to the numerous points of destination to be reached. By means of this book reliable and definite information is given so that shippers may be enabled to make use of "through package cars, thereby placing shipments as near their final destination as possible without transfer."

Owing to the thorough manner in which the public has been kept informed of

the movements in hand, and of the hearty enthusiasm with which the work is carried on, the Association has won the respect and enjoys the co-operation of the newspaper press of the city. The harmonious relations established between the Association and the municipal authorities, each having at heart the welfare and prosperity of the city in all its material interests, is especially noteworthy, and cannot be otherwise than productive of the higher development of the municipality, and of its financial, commercial and industrial advantages.

Add to this the full and thoroughgoing reports on all branches of the work which are printed in attractive and readable form each year, and it is readily perceived how wide an influence is exerted by the enterprising body of men who compose the membership of this association.

EXTENSIVE RANGE OF ACTIVITIES

A summary of some of the other work accomplished in the year 1910, besides what has already been mentioned will give an idea of the broad scope of usefulness represented by the activities of the Association.

The pollution of the waters of Lake Michigan, caused by dumping the dredgings from the bed of the Chicago river into the lake near the intake cribs, thus endangering the purity of the city's water supply, was sought to be remedied; and through the efforts of members a bill was passed by Congress, the only body having the power to regulate the matter, providing that such dredgings must be deposited at least eight miles from shore, or within a breakwater where the waters were almost entirely confined. This method of disposing of the river dredgings is now in complete operation.

Attracting conventions to Chicago is an important part of the work of the Association. The three hundred and five convention events which Chicago entertained during the year brought an estimated attendance of about 400,000 persons, with an average stay of four days for each one. The amount expended in Chicago by the visitors was estimated to be in excess of twelve millions of dollars. Among the most important events of 1910 was the Triennial Conclave of Knights Templars, and the United States Army tournament.

The long standing lack of signs to indicate the names of Chicago streets has also received the attention of the Association, as it seems to have grown to be an almost insoluble problem from long neglect. At its own expense the Association has provided many streets with signs at the street intersections, and an effort will be made to complete the work as fast as funds can be obtained from private sources, such as improvement associations, etc. Other subjects claiming attention are street cleaning, waste paper disposal, garbage crematories, and disposal of all manner of waste materials,—always working in co-operation with the regular city departments.

BROAD SWEEP OF THE ASSOCIATION PROGRAMME

The spectacle of a great body of citizens, such as is represented in the membership of the Chicago Association of Commerce, nominally devoting itself to commerce, but widening its field so that it takes cognizance of all the multifarious subjects included within the broad sweep of its activities as shown in the annual

GRAND BOULEVARD

reports of the Association, is one to attract the attention of public spirited citizens everywhere, and is a fair specimen of the Chicago spirit when it is once fairly awakened.

It will be noted throughout this account of the work of the Chicago Association of Commerce that there is a remarkable similarity between the aims and purposes of the association and those of the Commercial Club of Chicago, of which we have already given an account. In many respects these two organizations have moved on identical lines, the former occupying a much broader field, however, than the latter. Both have done and are doing a great work for Chicago, both have given examples of broad-minded citizenship, and both of them have shown to the community the value of that wonderful public spirit which has ever characterized the people of our city in working together for the civic betterment of the community for its welfare and prosperity, and making it worthy of its place among the leading cities of our land.

THE CHICAGO PLAN

"An individual never attains any very great size mentally nor morally except as he attaches himself to a great idea, and that idea, being worthy, grows with him until the stature of the man becomes equal to the stature of the idea to which he has attached himself."

This quotation is displayed prominently in the pamphlet issued by the Chicago Plan Commission in 1911, and is followed by a brief catechism in which questions are asked and answered. This catechism is quoted, as follows: "What is the Chicago Plan? It is a plan to direct the future growth of the city in an orderly, systematic way. What is its object? To make Chicago a real, centralized city instead of a group of overcrowded, overgrown villages. What does it mean? That by properly solving Chicago's problems of transportation, street congestion, recreation and public health the city may grow indefinitely in wealth and commerce, and hold her position among the cities of the world. Above everything else it is concerned with the three most vital problems confronting every metropolitan community—congestion, traffic and public health. The easy and convenient movement of traffic facilitates business, while the chief concern of any city is the public health of its citizens—its greatest asset. The Chicago Plan demands—in the interest of the latter—more and larger parks and play grounds and better and wider streets."

"The problem of our great cities today and for the next generation," says the author of the pamphlet, "is to provide light, air, ample means for healthful recreation, relief from congestion, facility of traffic, housing of the poor, scientific organization of charities, better public improvements, and attractive surroundings to the multitudes swarming to the cities. Right city planning is basic. A proper plan officially adopted and realized for the direction of the growth of a city in an orderly and systematic way practically affords a complete solution of the problems confronting our great municipalities. Such is the Plan of Chicago."

TO IMPROVE OUR PRESENT "CRAZY QUILT" PLAN

The proper way to improve our present "crazy quilt" plan is pointed out. Our public-spirited citizens should study the situation and bear in mind that "wise and

great as we are in Chicago, we are not so wise but that we can learn something in city planning from France, from Germany, from England, and from our own American cities." We must look forward to the time when "all barriers to the Plan of Chicago will be broken down," and to remember that "the well being of one promotes the well being of all." Further, it is most strongly urged that "we are to establish by the influence and work of a united citizenship the power necessary for Chicago's advance," and that "it requires only sufficient local patriotism to substitute order for disorder, and reason, common sense and action for negligence, indifference and inertia."

A great public responsibility rests upon the community to provide "adequate means for recreation and the health of its citizens, that physical efficiency may be maintained, thereby adding tremendously to the composite earning power of the community. Thus it will be seen that, aside from the humanitarian and practical necessity for right city building, there is a decided commercial asset in right planning that should not be lightly set aside."

Within fifty years we have added two millions to our population, and in all probability our present numbers will be increased to a total of five millions within another generation. "What, then, do we propose to do," continues the writer, "to surround ourselves, our children and their children, with attractive conditions,—comfort, convenience, means of recreation, health and happiness?" To build a city in accordance with a well considered plan is as important as building a house or cutting a garment. It is of vital importance that a plan should be adopted without further delay. Many millions may be saved by carrying out this work before property values have increased as they surely will in the natural course of events. By securing the co-operation of all such bodies as park commissions, forest preserve commissions, art commissions, and all other associations formed for public betterments and improvements, the work can be carried out according to a plan which will result in a new and glorified city arrangement.

INCEPTION AND GROWTH OF THE CHICAGO PLAN

The germ of the idea of a definite plan, under which all great city improvements should be made, dates from the World's Fair period, when so many great ideas affecting the future growth and welfare of the city were born. In 1903, the Merchants' Club undertook to formulate a programme, and in its hands it was well on the way to development when the club was merged with the Commercial Club in 1907. In this latter year the first "Plan Committee" was organized with Charles D. Norton as chairman, and Charles H. Wacker as vice-chairman. In 1909, Mr. Norton resigned to take up his residence in Washington, and Mr. Wacker succeeded him as chairman.

On July 6th, 1909, the mayor, Hon. Fred A. Busse, addressed a communication to the Chicago City Council regarding the plan of the Commercial Club for improving and beautifying the city. A few quotations from this important document are herewith given: "In my judgment," he says, "the men who have fathered this project have done a most important work for their city and their fellow citizens. They have labored unselfishly as volunteers. They have given freely of their time and energy and money for a number of years to produce a clear, concrete and comprehensive plan of municipal development calculated to utilize the natural advan-

tages of Chicago in the direction of making it a most beautiful and attractive city as well as a commercial metropolis. I am now asked to present the result of their work to you with a view of securing your co-operation and, in presenting it, to make clear certain points."

The mayor then enlarged upon the plan, as follows: "The central idea out of which the Chicago plan has grown, as I understand it, is this: if Chicago is to become, as we all believe, the greatest and most attractive city on this continent, its development and improvement should be guided along certain definite and prearranged lines to the end that the necessary expenditures for public improvements from year to year may serve not only the purpose of the moment, but also the needs of the future; and to the end further that improvements made from time to time, and piecemeal, as necessity calls for them, may in the long run fit into and become parts of a well considered, consistent, practical, organized scheme of municipal development.

"The Chicago plan has been formulated as a basis and starting point, as it were, from which to work in the development of an official municipal plan, that shall embrace the making of public improvements and the development of the public utilities in coming years. . . The Chicago plan is in conflict with no other plan or project for the industrial or commercial development of Chicago. It fits in with the recommendations of the harbor commission: it takes into account and provides for the city's growing transportation needs."

AIMS OF THE PROJECTORS

A certain class of objectors are found in every community who look upon such proposals as those made in the Chicago Plan as visionary and impractical. The mayor's address deals with this phase of the subject. "This plan," he says, "is not to be considered as the embodiment of an artist's dream or the project of theoretical city beautifiers who have lost sight of everyday affairs and who have forgotten the needs and interests of the mass of the people. On the contrary, the men who have produced the Chicago plan are all hard headed business men whose interests individually and collectively are bound up absolutely with the industrial and commercial growth of this city.

"They are men who have learned by experience and observation that development, and beautification, if you please, making Chicago attractive to visitors from all parts of the world, will add to Chicago's resources a very great commercial asset, the value of which will be reflected in every piece of real estate within our limits. In producing this plan they have particularly had in mind relief for the neglect from which the great West Side has suffered and for the congestion at the city's commercial center which has so impeded healthy growth of the entire business district. In short, they have had in mind at every step in the production of the Chicago plan not only the artistic but the commercial and industrial development of the city of Chicago along lines that promise the best results at the least expenditure of time, effort and money. The Chicago plan does not contemplate the remodeling of Chicago in a year or a decade. It is the suggestion of a plan for the far future—a suggestion of something to grow to."

The mayor concluded his presentation of the Chicago plan to the City Council with a recommendation for its official recognition, and that he be authorized to

appoint a commission, to be composed of citizens whose duty it should be to take up this question.

THE CHICAGO PLAN COMMISSION

A Chicago Plan Commission was authorized by the Chicago City Council according to the recommendation of Mayor Busse, and in November, 1909, Mr. Charles H. Wacker was placed in charge as permanent chairman. The actual drafting of a practical plan of the city was made by Mr. Daniel H. Burnham, the eminent architect, who performed this valuable service without charge. The plan submitted contained suggestions of such alterations and re-arrangements of the existing streets and avenues as would be necessary, together with tentative designs of the structures and their locations,—all to form a comprehensive plan under which future improvements would be made. The extent and beauty of the designs furnished by Mr. Burnham and those associated with him will appear upon an examination of the elaborate and artistic drawings shown on the accompanying pages.

Mr. Burnham had already made plans for the cities of San Francisco and Washington, and also for the city of Manila in the Philippines. These plans had attracted wide public notice and had been commented upon extensively. Owing to his great reputation among the people of Chicago the plans he prepared met with a most sympathetic and cordial acceptance, and the weight of his name went far to secure their ultimate adoption. With the endorsement of the Chicago Commercial Club the city authorities were fully justified in taking up the Chicago Plan and giving it an official standing. Mr. Burnham was assisted in his great work by his associate, Mr. Edward H. Bennett.

THE COMMERCIAL CLUB'S REPORT

That the general scheme of city improvement known as the Chicago Plan has been well considered at every step, and that sufficient time has been taken in the development of the plan, it may be stated that when, in 1906, the friends of the movement, acting as a committee of the Merchants Club (merged in the following year with the Commercial Club), had prepared plans and drawings, visitors were invited to inspect them, which they did in great numbers. "Thus the plans have had the benefit of many criticisms and suggestions, made by persons especially conversant with existing conditions."

An elaborate report was prepared by the committee and issued in 1909, beautifully printed and illustrated with views and plans, under the title of "Plan of Chicago," which has become the text-book and guide for all seeking information on this subject. This work was issued in a limited edition only, and after distribution among the members of the club and a number of public institutions the edition was exhausted and copies can no longer be procured. The publication of this work had been done at large expense by the Commercial Club prior to the time when official recognition was given the movement by the Chicago Common Council, and a "Chicago Plan Commission" created.

In this report, which is really an exhaustive work on the subject in all its phases, it is said that "City planning, in the sense of regarding the city as an organic whole and developing its various units with reference to their relations one

to another, had its origin in Paris during the Bourbon period. Among great cities, Paris has reached the highest development; and the method of this attainment affords lessons for all other cities. Paris owes its origin and its growth to the convenience of its location in view of increasing commercial conditions. Its beginnings go back to the century before the Christian era, when it was but a straggling village called Lutetia, occupying one of the islands in the Seine. On the vast level plain adjoining the town, houses could be erected indefinitely, while the numberless water-courses extending into the surrounding regions gave access to the trader. Fertile lands furnished an abundance of provisions; and brick-clay, lime, and sand, with timber from the neighboring forests, provided materials for building. The surroundings of Paris, so rich in all the requisites for the creation of a great city, are similar to those of London and Berlin and Chicago; and in each instance there is the same breadth in the landscape."

THE CITY BUILDERS OF THE PAST

It was to the great city builders of the age of Louis XIV that Paris "owes those vast reaches of avenue and boulevard which today are the crowning features of the most beautiful of cities." It is pointed out that a similar opportunity is open to Chicago, and a "well-devised, symmetrical, highly developed plan" can be adopted, so that as the growth of the city and its natural expansion takes place they will be along lines fixed and determined beforehand towards a definite and harmonious result. A study of conditions as they existed in many of the great cities of Europe, and the wonderful results flowing from city planning, makes manifest the advantages that will accrue to our own city by the adoption of such plans as are proposed. A passage is quoted from an English writer, which has an application for the people of Chicago. "If London within the lifetime of men still in their prime had taken due precautions, what errors might have been avoided! London is now creating a park system and acquiring land that has quadrupled in value within thirty years. London is widening and straightening streets, and increasing thereby the expense of appropriating frontage that costs twice as much now as it would have cost a few years ago."

"The plan frankly takes into consideration the fact that the American city, and Chicago pre-eminently, is a center of industry and traffic. Therefore attention is given to the betterment of commercial facilities; to methods of transportation for persons and goods; to removing the obstacles which prevent or obstruct circulation; and to the increase of convenience. It is realized, also, that good workmanship requires a large degree of comfort on the part of the workers in their homes and their surroundings, and ample opportunity for that rest and recreation without which all work becomes drudgery. Then, too, the city has a dignity to be maintained; and good order is essential to material advancement. Consequently, the plan provides for impressive groupings of public buildings, and reciprocal relations among such groups. Moreover, consideration is given to the fact that in all probability Chicago, within the lifetime of persons now living, will become a greater city than any existing at the present time; and that therefore the most comprehensive plans of today will need to be supplemented in a not remote future. Opportunity for such expansion is provided for."

CHICAGO'S EXPANSION

The tendency of Chicago to expand towards the South and Southwest from its original business center suggested to those who were making the plan that the probable future center would eventually become established at some point in that direction. It was therefore decided in making the plan that the new "Civic Center" should be located at the intersection of Congress and Halsted streets. The civic center can be described as a place at which should be assembled the public buildings of the City of Chicago, those of Cook County and of the United States Government. These buildings, it is agreed by architects, should be constructed as a group. "Each should be made part of a plan, and the plan should be carried out to produce in the buildings, when erected, the most beautiful, impressive and perfect architectural effect possible."

Congress street was selected as the central east and west street in the plan for the reason that its course is about midway between important streets; for example, Washington street on the north and Twelfth street on the south; and going further each way it is also midway between Chicago avenue on the north and Twenty-second street on the south. Congress street, as it is well known, is not at present a continuous street, but in the new plan it would be opened through the entire distance. The new Congress street would be widened from Wabash avenue to Canal street, and from that point widened still more until it opened out upon the great Civic Center itself. Throughout its course it would be "built up as a highly adorned thoroughfare, with theatres, semi-public buildings, and great retail shops."

VISIONS OF FUTURE MAGNIFICENCE

The future magnificence of the civic center and its approaches is vividly outlined in an imaginative description contained in a pamphlet issued by the Chicago Plan Commission. The reader is invited to picture the great avenue approaching the civic center from the east with its separate divisions for different classes of traffic, lined on each side with rows of noble buildings. Then imagine the view towards the civic center from any direction with the great municipal building placed in the central position surmounted by a stately dome towering hundreds of feet in the air. Fancy this impressive dome in plain view of a million people daily traveling on the ten broad avenues converging upon it from all parts of the city, an emblem of the dignity and grandeur of Chicago in its power and glory.

These excursions of the imagination are, however, founded upon practical plans, easy of comprehension. The civic center, as drawn in the plan, comprises a space extending from Jefferson street west to Halsted street, and from Harrison to Van Buren streets, with a further extension westward to form within the limits mentioned an immense concourse for the ten separate avenues converging at that point, similar to the space in the center of which is placed the famous Triumphal Arch in Paris. The center of this space would appropriately be occupied by the great domed building devoted to municipal purposes, and flanking it on either side the Federal and County buildings artistically grouped in harmony with it.

"Into the spacious civic center as laid out," says the writer, from whose pamphlet we have drawn these outlines, "all the wide thoroughfares, including the new-made streets centering there, would pour their throngs. The great dome of the

City Hall would be visible for miles in any direction. It would be perpetual, stand forever, and for all time anchor Chicago's center at that spot."

ESSENTIAL PRELIMINARIES IN THE PLAN

In the development of the plan the diagonal streets radiating from the civic center become essential features. Already Blue Island avenue, in its present course and direction, answers the purpose exactly. Other diagonal avenues, such as Milwaukee and Ogden avenues, indicate by their present usefulness as routes of traffic the still further extension of such convenient arteries. In time it will be found necessary to cut through other diagonal avenues, particularly on the great West Side. Connecting with these, circuits of existing thoroughfares must be improved so that street traffic can move freely about the city's center.

Therefore "the first constructive work of the Chicago Plan Commission, the foundation stone for all that is to follow, is to carry out the circuit idea by completing the great quadrangle formed by Twelfth street on the south, Halsted street on the west, Chicago avenue on the north, and Michigan avenue on the east. These four streets are destined to bear the heaviest traffic of any streets in Chicago. The initial step will be to widen Twelfth street from Michigan to Ashland avenues, the second to widen Michigan avenue from Randolph street north to connect with Chicago avenue." Chicago avenue is sufficiently wide already, and at its intersection with Halsted street the widening of the latter, from that point to Twelfth street, will complete the outlines of the quadrangle.

Halsted street, the western boundary of the quadrangle, it is predicted, will eventually carry an enormous traffic. "It is so situated that its usefulness, already great, may be very much increased. It is selected as, next to Michigan avenue, the most important north and south traffic thoroughfare. Under the Chicago Plan the street would be widened, paved properly, and developed as one of the great central business streets of the future city."

The street which holds the most important place in the development of the plan is Michigan avenue, which, it is declared, "is destined to carry the heaviest movement of any street in the world." Along this street, fronting Grant Park and the lake beyond, are and will continue to be a splendid array of great office buildings, hotels, clubs, music halls, and shops of the first order. North of Randolph street the plan includes the broadening of Michigan avenue, carrying it across the river on a double-decked bridge situated somewhat east of the present site of Rush street bridge; and extending the street to Chicago avenue. Crossing the river on this plan would supply the long-desired "connecting link" between the north and south boulevard systems, the planning of which has involved one of the most difficult problems heretofore encountered. "If there is one phase of the plan of Chicago that every citizen should demand," says the writer previously cited, "it is the building of this connecting link. Its value as a Chicago asset would attract internationally wide attention. Property values in the immediate section of this proposed improvement would be tremendously enhanced. Indirectly the benefit would be to the whole city, even to those of our citizens living in its remote sections."

The first step in carrying out the plan will be taken by widening and improving Twelfth street. The necessity for beginning with Twelfth street consists in the fact that this street is "the only through thoroughfare between Harrison and

Eighteenth streets connecting the West Side with the down town district. The actual heart of the city's population today is a little north of the corner of Twelfth and Halsted streets. Traffic and the city's growth are gradually moving in a southwesterly direction. Adequate provision must be made for a suitable outlet from that district to the present business center of the city."

LAKE MICHIGAN'S PART IN THE PLAN

We have twenty-five miles of shore line on Lake Michigan lying within the limits of the city of Chicago,—extending from the Indiana state line on the south to the "Indian Boundary Line" on the north. This extensive frontage is a quite regular crescent in form; a line drawn from one of its horns to the other would be three thousand feet from the shore line at a point opposite Twenty-second street.

While the Chicago Plan gives attention to many things,—upbuilding of Chicago's commerce, increasing the facilities for manufacturing, making easier the handling of traffic, providing for recreation and exhibiting the best and noblest of examples of architecture, one of its most important proposals is the broad and generous plan in regard to the lake front. Almost nowhere else in the world is there such an opportunity which so far has been but partially realized by our people. An eminent Frenchman, while visiting Chicago and noting how little had yet been done towards making its natural attractiveness available, said "Chicago has not yet discovered its lake front." The lake front, however, has been fully recognized in the plan, and an extensive system of improvements includes this important natural feature.

"Beginning at Jackson Park, the Chicago Plan provides first for a yacht harbor in a basin about three miles along shore, and perhaps two miles across. This will result from the building of a half-circle of little islands in the lake in the zone from Forty-third to Forty-fifth streets, where the water is quite shallow. Then northward will sweep one large island, or perhaps two islands, reaching to the main harbor at Twelfth street. This land is to be from six hundred to one thousand feet across. Between it and the mainland will run a lagoon four hundred feet wide, to be used for canoeing, motor-boating and rowing. It will provide a waterway, always calm, always safe, five miles long and nearly a thousand feet wide.

"As a further development of this water-front park scheme, it is planned to build a new strip of land immediately east of the Illinois Central railroad tracks and extending out into the water for a distance of approximately two or three hundred feet, running the entire length from Jackson Park to connect with Grant Park at Twelfth street, paralleling the lagoon and outer parkway strip. . .

"Another splendid feature of the lake front parks is an idea to have extending from Twelfth street north to Washington street a great central harbor faced by Grant Park. This great basin lies in the hollow of curving park-land shores extending into the lake for three-quarters of a mile. Two long sea-walls, curving inwards, with openings at the center and at either end, permit easy passage of vessels and assure calm water always within the harbor."

At Twenty-second street and at Chicago avenue two long narrow parks, running in a direction at right angles with the shore, will extend into the lake a distance of a mile or more, at the end of which will be built two tall lighthouses. These

parks will be about five hundred feet in width and will be planted with trees, shrubs and flowers, and provided with walks and drives.

"Northward from Chicago avenue the plan offers a variation from the south shore plan, the islands being built a little farther off shore, and the inner lagoon narrowing, but continuing unbroken until it connects with the yacht harbor and park already established at Wilmette, where begins the inland waterway provided by the north channel of the drainage district, which canal now cuts through Evanston and connects with the Chicago river at the city's northern extremity. The preliminary plans for these great island parks, which will be hundreds of acres in extent, call for bridges and connecting ways by which the people of the various divisions of the city may at all times reach the lake front parks, playgrounds and the recreation and bathing beaches adjacent to them."

These plans for the improvement of the lake front will doubtless be among the earliest ones to be carried into execution, for the reason that the expense of the work need not be very considerable. The immense amount of excavated material which is continually being carried out and thrown into the deep waters of the lake can much more advantageously be deposited at points designated in the plans, and thus form the substantial foundations required.

"As a side feature of the lake front plans it is proposed to drive a boulevard-skirted lagoon through the Midway Plaisance on the South Side, connecting the lagoons of Jackson and Washington parks, and opening a way for pleasure craft to pierce far into the heart of the residence section of the city. The earth removed in the construction of this long lagoon, of course, will go far toward helping the island construction work within the lake."

GLORIES OF THE CIVIC CENTER

Referring again to the wide spaces and splendid groups of buildings forming the civic center attention is especially directed to the great "central administrative building" to be surmounted "by a dome of impressive height, to be seen and felt by the people, to whom it should stand as the symbol of civic order and unity. Rising from the plain upon which Chicago rests, its effect may be compared to that of the dome of St. Peter's at Rome." In the drawings accompanying the plans the buildings are shown raised on terraces, thus giving great dignity to the structures, and marking the transition from them to the great open spaces surrounding them.

It is foreseen that the present accommodations for the offices and courtrooms connected with the county government will eventually prove inadequate for the county's purposes. Says the report: "Space at the civic center should be reserved for the next county building which Cook County will build when the present one becomes too small to accommodate the county business. Experience shows that in this country a public building is no sooner finished than it is found not sufficiently extensive to provide for the public business that it was meant to serve. The designs for this square and its buildings are suggestions of what may be done, for the report does not seek to impose any particular form on structures that when executed must carry out a program dictated by the growing necessities for adequate accommodations for administrative offices, and the rapidly developing demand on the part of the public for order and beauty in the arrangement of these elements of city life.

"The Federal group should be only less extensive than that devoted to city purposes. The Chicago Federal Building, completed in 1905, is already inadequate. Indeed it has been the custom of the general government to attempt to house many and divergent departments of administration under one roof. In a great city like Chicago the dignity and the business of the United States Courts demand a building exclusively for that one purpose." A new site is already being sought for the postoffice on the West Side, and this indicates that the time is fast approaching when the present building will be entirely occupied by other departments of the Federal government. "The Federal buildings alone, if they are to be adequate to the demands of the public business, would require a group of buildings of the first order in so far as architecture and location are concerned."

CHARACTER OF THE PROPOSED GROUPS OF BUILDINGS

"The civic center," continues the report, "will be dependent for its effectiveness on the character of the architecture displayed in the buildings themselves, in their harmonious relations one to another, and in the amount of space in which they are placed. Surely, the results attained at the World's Columbian Exposition in 1893 so amply proved the truth of these principles that it is not necessary to enlarge upon them. The attainment of harmony, good order, and beauty is not a question of money cost, for in the end good buildings are far cheaper than bad buildings. What is required is enlightened understanding and competent planning; the great buildings of the world are simple and inexpensive when compared with many of the over elaborate structures of the present day; but for centuries they have served their important purposes and the people will not give them up, because they have become part and parcel of their life. They typify the permanence of the city, they record its history, and express its aspirations.

"Such a group of buildings as Chicago should and may possess would be for all time to come a distinction to the city. It would be what the Acropolis was to Athens, or the Forum to Rome, and what St. Mark's Square is to Venice,—the very embodiment of civic life. Land should be acquired in quantity sufficient to carry out a plan commensurate with Chicago's needs, and with her dominating position in this region. This plan first should be worked out by the architects, and then should be realized by the concerted action of the community.

"Important as is the civic center considered by itself, when taken in connection with this plan of Chicago it becomes the keystone of the arch. The development of Halsted street, and Ashland and Michigan avenues, flanked by the great thoroughfare of Chicago avenue and Twelfth street, will give form to the business center; while the opening of Congress street as the great central axis of the city will at once create coherence in the city plan. Nowhere else on this continent does there exist so great a possibility combined with such ease of attainment. Simply by an intelligent handling of the changes necessary to accommodate the growing business of Chicago, a city both unified and beautiful will result. The lake front will be opened to those who are now shut away from it by lack of adequate approaches; the great masses of people which daily converge in the now congested center will be able to come and go quickly and without discomfort; and in the center of all the varied activities of Chicago will rise the towering dome of the civic center, vivifying and unifying the entire composition."

THE FINANCIAL CONSIDERATIONS INVOLVED

The cost of carrying out the program proposed in the Chicago Plan becomes a vital consideration. "It is fully realized," says the report, "that a plan calling for improvements on a scale larger and more inclusive than any heretofore proposed seems, on first consideration, beyond the financial ability of the community. If, however, the plan meets public approval, it can be executed without seriously increasing present burdens. The very growth of the city, creating as it does wealth greater than mines can produce, gives a basis of bond issues in excess of the utmost cost involved in carrying out this plan. The increase in the assessed value of real estate in the city of Chicago for the past ten years exceeds the expense required to put the plan into execution; and at the same time the very character of the proposed changes is such as to stimulate the increase in wealth. The public, therefore, has the power to put the plan into effect if it shall determine to do so."

Comparing the plan in its most comprehensive aspect with great public undertakings in the past it is shown that the people of Chicago have not hesitated to enter upon vast projects of bewildering magnitude, and have successfully completed them to the great advantage of the community materially and morally. "The Chicago World's Fair, like the raising of the grades of the city, the creation of a complete system of parks and boulevards, and the building of the Drainage Canal, went far beyond anything of the same kind ever before undertaken by a city. These four works are the greatest ones achieved by Chicago. They have proved the readiness of the people to take up large schemes of public improvement which at the time of their inception required great foresight and great faith in the future. Two of them were demanded by considerations exclusively practical, while the other two were not so regarded, but on the other hand were the expression of the deeper sense in man of the value of delightful surroundings. If an accurate statement of the cost of the four improvements could be made, it would probably show that about equal sums have been spent on the practical and on the aesthetic side. . . .

"Mere increase in numbers does not warrant the belief that public sentiment in favor of extensive public works will grow in proportion to the population; but the history of the past does prove that the people of Chicago are always ready and anxious to follow when the way of great benefits is plainly open. We believe that the tendency which the community has shown by its acts points hopefully to the adoption of a great scheme of public improvement."

INCENTIVES TO GREAT PUBLIC ENTERPRISES

While no obstacles have in the past proven sufficient to prevent the execution of great enterprises of the character mentioned in the preceding paragraphs, there is now an additional incentive to undertaking such enterprises when shown to be necessary for the welfare of the community. "There is still a stronger reason for the belief," continues the report, "that the public will favor such a plan as is herein presented. It lies in the growing love of good order, due to the advance in education. Every one knows that the civic conditions which prevailed fifty years ago would not now be tolerated anywhere; and every one believes that conditions of today will not be tolerated by the men who shall follow us. This must be so,

unless progress has ceased. The education of the community inevitably brings about a higher appreciation of the value of systematic improvement, and results in a strong desire on the part of the people to be surrounded by conditions in harmony with the growth of good taste; and as fast as the people can be brought to see the advantage to them of more orderly arrangement of the streets, transportation lines, and parks, it is well-nigh certain that they will bring about such desirable ends."

There are a number of other features of the Plan of Chicago included in the report above referred to, but in the rapidly changing conditions of the present time some of them already need to be modified in respect to the forms of the proposals made. We have not, therefore, attempted to give an outline of the proposed arrangement of terminals or transportation routes. These matters are now taking shape in the hands of committees of the Common Council, and as a consequence of further study they will eventually be presented in practicable form for the consideration of the people who will be the final arbiters. Indeed, this has been the view of the Commercial Club committee, which has wisely ventured suggestions only, and to whom the public is much indebted for the comprehensive plan of Chicago. The committee has constantly held to the principle that the plan as proposed is subject to modification and revision. The men who have thought out and at so much pains and expense of time and money have presented this plan have labored unselfishly as volunteers, as Mayor Busse has said, and their views have favorably impressed a large number of thoughtful and public spirited citizens. The plan as presented is a complete and practicable method of dealing with problems which are forcing themselves upon the people of Chicago, and which, like the riddle asked by the Sphinx, must be solved, or they will be devoured.

PURPOSES OF THE PLAN

"If the plan as a whole be approved by the majority of our citizens because it is found to be both practical and beautiful, the next question is as to what it commits us. In answering this query a general review of the principal elements composing the plan will be of value. The following list comprises the main items:

"First—The improvement of the lake front.

"Second—The creation of a system of highways outside the city.

"Third—The improvement of railway terminals, and development of a complete traction system for both freight and passengers.

"Fourth—The acquisition of an outer park system, and of parkway circuits.

"Fifth—The systematic arrangement of the streets and avenues within the city, in order to facilitate the movement to and from the business district.

"Sixth—The development of centers of intellectual life and of civic administration, so related as to give coherence and unity to the city."

STREET CIRCULATION AND EXTENT OF AREA

The advantages to the public of having a larger area included in the business district is set forth in the plan. "Of first importance," says the report, "is the restoration to general business of the territory from State street to the South Branch of the river, and from Van Buren street south to Twelfth street. This area

is almost as large as our present central business district of Chicago, in which there can now be no extension of such of our great industries as can succeed only when operated in the very center of the business district. Present conditions are crowding out enterprising men and vast capital. This new area must be added to the old, and by no other means than those proposed can this be done.

"The regions north of the main river and west of the South Branch are filling up solidly and very rapidly with business, such as is not and never will be done on the old location from Van Buren street to Water street; meanwhile there is the most urgent necessity of extending the space for the kind of business that is and always will be done on such a location as the one proposed. If this is the case now, what will be the case ten years hence? We cannot act too promptly in regard to creating and maintaining perfect street circulation, car circulation, and extension of area for the heart of Chicago. We cannot get ready too soon for the enormous extension of all the facilities the necessity for which is already pressing."

The opportunities afforded in the proposed plan for placing fountains, monuments, and statuary groups in eligible situations, is not to be lost sight of. "Public spirited citizens," says the report, "have left precious legacies by providing for the intellectual and aesthetic needs of the people; and it should be esteemed a high privilege as well as a sacred duty to administer those gifts in such a manner as to accomplish the most effective results from the benefactions. So to manifest appreciation encourages others to emulate the good example: and simply by taking thought the city gains constantly by the addition of monuments which benefit the whole community."

A GREAT NORTH AND SOUTH THOROUGHFARE

Opening through the center of the present business or loop district an adequate north and south thoroughfare is provided for, and is described as follows: "It is proposed ultimately to widen La Salle street from Van Buren street south, and to connect it with Wentworth avenue, also widened; likewise to widen La Salle avenue from the river north,—changes which will come about with the new arrangement of railway stations. By this means a much needed thoroughfare can be opened between the North and South Sides; and when this is accomplished an open space should be created at the intersection of La Salle and Congress streets, around which should be grouped great business exchanges. This area would become the financial heart of the city, being directly connected in the best manner with the existing banking and office-building neighborhood. Such an axis as La Salle street, running from the South Side north to Lincoln Park, and having no street cars on its surface, would seem to be demanded for the future time (perhaps not so far off) when the inhabitants of the city shall number several times as many as today."

The future uses of the Chicago river are enlarged upon in the report, taking the examples found in foreign and American cities as fairly indicating what may be expected shall be its fortunes. The fact that the river and its branches flow in near proximity to the business district, and for long distances pass through districts occupied by great warehouses, elevators, and freight terminals, will afford an opportunity of adapting the streams to other uses, in addition to those they now possess. "It has been the experience of European cities that the banks of a river, although at first devoted only to commercial purposes, sooner or later are trans-

formed into places which combine business uses with drives and promenades for traffic and for the pleasure of the people. The treatment of the Thames in London, the Seine in Paris, the Danube in Vienna and Budapest, the Scheldt at Antwerp, the Riverside Drive in New York, and the proposed Potomac Quay in Washington, are, all of them, instances of development which indicates clearly what must also result to the Chicago river when the city comes to give attention to other needs in addition to those of commerce and manufactures."

THE TRUE GREATNESS OF CITIES

"The experience of other cities, both ancient and modern, both abroad and at home," says a writer in the "Chicago Plan," "teaches Chicago that the way to true greatness and continued prosperity lies in making the city convenient and healthful for the ever-increasing numbers of its citizens; that civic beauty satisfies a craving of human nature so deep and so compelling that people will travel far to find and enjoy it; that the orderly arrangement of fine buildings and monuments brings fame and wealth to the city; and that the cities, which truly exercise dominion, rule by reason of their appeal to the higher emotions of the human mind. The problem for Chicago, therefore, resolves itself into making the best use of a situation, the central location and resources of which have already drawn together millions of people, and are clearly destined to assemble many times that number; and planning for that civic development which promotes present content and insures permanence."

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